Atomism in the *Aeneid*

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Physics, Politics, and Cosmological Disorder

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For Michael, Martina, and Sean

Abbreviations

Here follows a list of abbreviations used in this book.

C-N	*The Works of Virgil.* 1883–98. Conington, J. and Nettleship (eds.), H. London
KRS	*The Presocratic Philosophers*. 1983. Kirk, G., Raven, J., and Schofield (eds.), M. Cambridge. [2nd ed.]
OLD	*Oxford Latin Dictionary.* 1996. Glare, P. (ed.) Oxford
PHI	*Packard Humanities Institute.* http://latin.packhum.org/browse
RE	*Realencyclopädie der classischen Altertumswissenschaft.*1893–1980. Pauly, A., Wissowa, G., and Kroll, W. (eds.)
TLG	*Thesaurus Linguae Graecae*. http://www.tlg.uci.edu/index.prev.php
TLL	*Thesaurus Linguae Latinae*. http://publikationen.badw.de/en/thesaurus

Introduction

Lucretian Allusion, Virgilian Allegory

> *Non verba autem sola, sed versus prope totos et locos quoque Lucreti plurimos sectatum esse Vergilium videmus.*
>
> —Aulus Gellius, *Noctes Atticae* 1.21.6–7

> Moreover, we see that Virgil has imitated not only individual words of Lucretius, but also almost entire verses and a great many passages.
>
> —Aulus Gellius[1]

What is the overarching purpose and nature of intertextual references to Lucretius's *de Rerum Natura* in Virgil's *Aeneid*? Does there exist a "program" of Lucretian allusion in Virgil's epic? And if so, what are the common characteristics of these varied intertextual moments, which are woven into the fabric of so many important scenes throughout the poem? Although legions of scholars since Aulus Gellius have remarked upon Virgil's profound literary debt to Lucretius—a debt second only, perhaps, to the debt to Homer when measured by the sheer volume of identifiable verbal parallels—there have been surprisingly few accounts of Lucretian allusion in the *Aeneid* that are both comprehensive and compelling.[2] Of course, many insightful studies

[1] Unless otherwise specified, all translations are my own. For Latin quotations of Virgil and Lucretius, I have followed the text of Mynors (1969) (Oxford Classical Texts) and Bailey (1947), except where noted. Throughout this book I have used underlining within quotations to draw attention to intertextual echoes, while more general emphasis is conveyed through the use of italics.

[2] The loss of most of Ennius' *Annales* makes it hard to rank the relative importance of Lucretius versus Ennius, but Lucretius was undoubtedly one of the most important Latin models for Virgil's epic style in the *Aeneid*. For a rough measure of the sheer volume of references to Lucretius in Virgil, see Merrill 1918: "Parallels and Coincidences in Lucretius and Vergil," which offers a Knauer-like table of parallels running 83 pages. Although this table contains many errors and dubious attributions, it nevertheless attests the remarkable level of detailed engagement with Lucretian idiom that one finds throughout Virgil's poetry. A less comprehensive, but more judicious, tabulation of Virgil's allusive

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already exist that shed light on particular aspects of Lucretian intertextuality in Virgil's poetry, but in the gaps between these works lie a significant number of overlooked passages that engage with Lucretius' Epicurean philosophy, and with atomism especially. Broadly speaking, therefore, this book is concerned with providing a global framework for understanding many of the Lucretian words and verses found in the *Aeneid*—one that synthesizes much of the existing scholarship while filling in a crucial gap in our understanding of Virgilian allusions pertaining to Epicurean physics and cosmology.

My objective in pursuing this global account of Lucretian intertextuality in the *Aeneid* is twofold. First, I wish to identify and analyze allusions in the *Aeneid* that evoke the philosophy of Epicurean atomism, and in doing so, to illustrate the great extent to which Virgil engages with Lucretius' poem *as a philosophical text*. Second, from this diverse collection of philosophical allusions, which are scattered throughout the poem, I will endeavor to draw some general conclusions about the dominant political and cosmological worldview of the *Aeneid*.[3] I believe that careful attention to atomic details in the *Aeneid*, however minor, may help us to form a better understanding of the poem's overall orientation toward teleology and order, as illustrated by the negative example of atomic *disorder*. In particular, I am concerned with demonstrating the interdependence of the poem's mythological, political, and cosmological narratives, all of which share a common teleological understanding of order and progress that is starkly opposed to the worldview of Epicurean atomism. Furthermore, by investigating how and why Virgil employs atomic imagery and ideas in the poem, I hope to avoid creating a false dichotomy between philosophical reference and literary allusion, and to show instead that many intertextual references to Lucretius in the *Aeneid* participate in an allegorical conflict between order and disorder that is neither exclusively literary nor philosophical, but simultaneously and inextricably both.

I devote the rest of this Introduction, as a prelude to this task, to the consideration of two important subjects: (1) a review of the main threads of scholarship that deal with Virgil's Lucretian intertexts, and (2) the use of philosophical allegory (both ancient and modern) as a method of interpreting

debts to Lucretius in the *Aeneid* can be found in the *Index Locorum* of Hardie's *Cosmos and Imperium* (1986: 387–88).

[3] For discussion of the permeability of the "political" with other categories of meaning and reference in Augustan poetry, see Kennedy (1992).

the *Aeneid*. Chapter 1"(Characterizations of Epicurean Atomism") assesses pre-Virgilian attitudes toward atomism, arguing that Virgil adopts his tendentious portrayal of atomism in the *Aeneid* as a system of disorder from the hostile critiques of earlier non-atomist philosophers. Chapter 2 ("Trojans under the Influence of Atomism") examines scenes in which the poem's Trojan protagonists are faced with obstacles that are associated with atomic disorder, while Chapter 3 ("Non-Trojans under the Influence of Atomism") analyzes the atomic characterization of prominent non-Trojan antagonists. Chapter 4 ("Turnus and the End of the Epicurean World," investigates the dense cluster of Lucretian intertexts present in the duel at the end of Book 12 between Aeneas and Turnus, whose defeat in combat represents a defeat for the non-hierarchical worldview of atomism and a victory for teleological order—albeit one that is tempered in the final moments of the poem. Last, Chapter 5 ("Atomism and the Worldview of the Aeneid") summarizes the ideological significance of Virgil's negative attitude toward atomism in the *Aeneid*, and how this view fits into the available ancient evidence concerning the poet's personal and literary ties to Epicurean philosophy. I conclude by suggesting some directions for further study, with respect both to literary receptions of atomism and to Lucretian allusion more generally in Augustan poetry.

I.1 GLOBAL APPROACHES TO VIRGIL'S LUCRETIAN INTERTEXTS

As previously noted, Lucretius' pervasive influence upon Virgil's poetic language has been widely acknowledged since ancient times, and yet scholars and critics have disagreed sharply about what sort of meaning (if any) to attribute to such intertexts. In addition, scholarship on Virgil's allusive relationship to Lucretius has tended to favor investigation of the *Georgics*, whereas the *Aeneid* has received comparatively less attention.[4] While there are numerous studies devoted to the analysis of discrete Lucretian allusions

[4] A number of studies have outlined programs of Lucretian (or generally philosophical) allusion in the *Georgics*. While an exhaustive list is beyond the scope of this book, important works for the study of Lucretian physics in the *Georgics* include Gale (2000), *Virgil on the Nature of Things: The* Georgics*, Lucretius and the Didactic Tradition*; Farrell (1991), *Virgil's* Georgics *and the Traditions of Ancient Epic*; and *pace* Ross (1987), *Virgil's Elements: Physics and Poetry in the* Georgics, which pointedly denies Lucretius any role as an intertextual model for Virgil's didactic poetry. For a list of earlier works on the question of Epicureanism in the *Georgics*, see Gigante 2004: 93.

or episodes in the *Aeneid* at a local level, few works since Philip Hardie's 1986 *Virgil's* Aeneid*: Cosmos and Imperium* have attempted to provide a larger framework for understanding the many Lucretian intertexts scattered throughout the poem—that is, to articulate a systematic *program* of Lucretian allusion.[5]

All the same, most of the studies that examine individual Lucretian allusions in the *Aeneid* subscribe to some existing framework or methodology of interpretation (explicit or otherwise) that guides how they make sense of local details. In the following review of previous works of scholarship, I identify three main camps of interpretation: one that interprets correspondences between Lucretius and Virgil primarily as a stylistic (and less meaningful) function of their writing in the same epic genre; a second that interprets Lucretian intertextuality as evidence of the supposedly pro-Epicurean sentiments of the poem or its author; and a third focused upon an adversarial style of intertextuality that Benjamin Farrington has labeled "polemical allusion," in which Virgil adopts the language of *de Rerum Natura* while displacing or inverting its philosophical content (1999: 18). Of course, these are not hard and fast categories, and there is in practice a certain amount of overlap among them. Yet they will suffice for a useful (if perhaps overly schematic) sketch of the current trends in Virgilian and Lucretian scholarship, while giving a sense of certain persistent interpretive shortfalls that this study aims to address.

I.1.1 Genre, Style, and Tone

One popular response to the presence of Lucretian intertexts in Virgil has been to interpret them as markers of generic or authorial style that are largely devoid of specific philosophical reference or meaning.[6] Although this attitude is most evident in scholarship on the *Georgics*, it nevertheless continues to influence contemporary analyses of the *Aeneid*, at both the local and global

[5] By "program" I have in mind studies along the lines of Knauer's *Die* Aeneis *und Homer* (1964), Nelis's *Vergil's* Aeneid *and the* Argonautica *of Apollonius Rhodius* (2001), and Farrell's *Vergil's* Georgics *and the Traditions of Ancient Epic* (1991), all of which go beyond investigation of local meanings to posit comprehensive interpretations of how and why Virgil alludes to a particular author or genre, what Nelis calls "a consistent, structured pattern of imitation" from "the *Aeneid*'s first line to its closing scene" (2001: 7).

[6] See, e.g., Tarrant 2012: 318 (ad 12.887–918); Thomas 1999: 117–18, 1988: 4 (vol. 1); Ross 1987: 27–28; Innes 1979: 169; and Wigodsky 1972: 139.

levels of interpretation. Richard Thomas, in his typology of poetic reference articulated in *Reading Virgil and His Texts* (1999), defines this style of verbal recall as "casual reference":

> Casual reference will not concern us for long. It is quite simply the use of language that recalls a specific antecedent, but only in a general sense, where the existence of that antecedent is only minimally important to the new context, where, one could say, an atmosphere, but little more, is invoked. This occurs most frequently in the *Georgics* with reference to Lucretius. (Thomas 1999: 117–18)

Like Thomas, many of the scholars who espouse this minimalist attitude toward certain kinds of intertextuality (typically contrasted with a more elevated type of "conscious" or "meaningful" allusion) cite Virgil's use of Lucretius in the *Georgics* as the paradigm for such generic or stylistic signaling. For instance, David Ross, in the introduction of his 1987 book on natural philosophical allusion in the *Georgics*, states that Virgil evokes Lucretian lines "only to convey some required tone (e.g., of philosophical cosmogony), not to contrast contexts or recall the idea" (Ross 1987: 27–28). Similarly, in his survey of Virgil's intertextual engagement with early Latin poetry, Michael Wigodsky argues that the poet alluded to Lucretius throughout his works most frequently for reasons of style, rather than specific reference.[7]

While this type of stylistic or generic gesturing does not automatically exclude the possibility of more meaningful or substantive allusive engagement with Lucretius (Thomas, for example, has elsewhere documented a number of Lucretian allusions in the *Aeneid* that engage closely with the original context of the source text),[8] the tendency to dismiss Lucretian intertexts as stylistic background noise or as ornamental markers of genre affiliation continues to influence contemporary scholarship on the *Aeneid*. Joseph Farrell, for instance, in his 2014 survey chapter "Philosophy in Vergil," argues that many Virgilian references to philosophy in the *Aeneid* are simply generic "gestures" toward philosophical discourse. That is, they are meant to evoke the genre of philosophical writing "in order to acknowledge the place

[7] See Wigodsky 1972: 139: "Formulaic expressions and casual verbal reminiscences greatly predominate over specific imitations." In a similar spirit, Karl Maurer argued that such non-allusive "echoes" are "omnipresent" in classical Latin poetry (2003: 124).

[8] See, e.g., Thomas 2001: 6, which investigates the potentially subversive Lucretian implications of the phrase *aurea condet/saecula* ("he will found a golden age") at *Aen*. 6.792–93.

of philosophy in the Roman epic tradition, not to articulate a coherent philosophy, and still less to assert [Virgil's] own, personal beliefs" (2014: 84).[9] Similar assumptions undergird many observations and analyses in Richard Tarrant's 2012 commentary on *Aeneid* 12. While Tarrant demonstrates a keen sense for the literary qualities of Virgil's Lucretian intertexts, he often discounts the possibility that such borrowings may convey philosophical meanings.[10] The essential shortcoming of this approach is that, even when scholars identify striking Lucretian intertexts, they may pass over philosophically meaningful words and phrases, thus missing a crucial component of Virgil's allusive relationship to Lucretius.

I.1.2 The "Epicurean Aeneid*"*

In contrast, from the last century there is a small but noteworthy body of scholarship that takes the issue of philosophical meaning to the opposite extreme, inferring a hidden pro-Epicurean agenda from the many Lucretian references in the *Aeneid*.[11] As a countercurrent to more traditional pro-Stoic readings of Virgil's epic, this view has always been something of a minority opinion, and is only sparsely attested in earlier scholarship.[12] Among more recent attempts at a universal Epicurean reading of the *Aeneid*, the two most ambitious are Viviane Mellinghoff-Bourgerie's

[9] See Farrell 2014: 81 on philosophical reference in the *Aeneid*: "In contrast with other intertextual relationships, specific verbal indices (other than words like *ira* and *rex*) are generally scarce." Cf. similar remarks on the *Georgics*: "Virgil wished not to pass on to his readers any specific philosophical truth, but simply to combine certain characteristic topics of philosophical speculation with characteristic tropes of philosophical argument as components of an essentially poetic, not philosophical, discourse" (74).

[10] See, e.g., Tarrant 2012: 178 (ad 12.354): "*inane* as a noun can evoke Lucretian descriptions of the void (as in *Ecl.* 6.31–32 *magnum per inane coacta* | *semina*), but here it is a loftier equivalent of *aer*." Even when allowing for the possibility of a complementary philosophical interpretation, Tarrant often hedges: "Language recalling Lucretius is also frequent, clustering around the simile in 908–12 . . . Using Lucretian language is a means of elevating the tone, but *it also seems possible* that Lucretius was associated in V.'s mind with a certain area of experience or type of emotion, as was Catullus. *A possible specific factor* is the prominence of the fear of death in the portrayal of T. in this final section" (2012: 318, ad 12.887–918; *emphasis added*). Further examples can be found in this book's Chapter 4, which discusses Lucretian allusions in Book 12 of the *Aeneid*.

[11] For a critique of various attempts to "claim" Virgil for a particular philosophy, see Braund 1997: 205–7, 220–21. Cf. Gigante 2004: 95: "Vergil is resistant to imprisonment in any preconceived scholastic formula."

[12] For earlier attempts at reading the *Aeneid* as a pro-Epicurean poem, see Herrmann (1938) and Frank (1920). While both of these articles are brief and focused on local details, they articulate a global reading that anticipates those of Mellinghoff-Bourgerie and Adler, discussed in nn. 13 and 14.

*Les incertitudes de Virgile: Contributions épicuriennes à la théologie de l'*Énéide (1990), and Eve Adler's *Vergil's Empire: Political Thought in the* Aeneid (2003), each of which argues for a reading of the poem that endorses Epicurean philosophy in some way. Mellinghoff-Bourgerie, for instance, argues that Aeneas represents the Epicurean *idéal du sage* (228), who is knowledgeable about the world and takes responsibility for his own actions.[13] In a similar vein, Adler interprets the *Aeneid* as a crypto-Epicurean poem caught in the tension between the depressing reality of a godless atomic cosmos and the need to protect people from that truth with the pleasant fictions of mythology.[14]

While both studies deserve praise for their detailed and thorough cataloguing of possible Lucretian intertexts in the *Aeneid*, their core arguments are ultimately weakened by assumptions about Virgil's philosophical beliefs and intentions that are both unknowable and unlikely. This methodological bias leads to a skewed interpretation of many passages that privileges possible Epicurean connections at the expense of structurally important references to epic models such as Homer, Apollonius, and Ennius.[15] At the same time, however, a number of studies with a more limited scope, such as Kronenberg (2005), Indelli (2004), and Erler (1992), have fruitfully investigated the application of Epicurean theory to individual scenes or topics, strongly supporting the notion that certain muted voices of Epicurean dissent really do exist within the *Aeneid*.[16]

[13] See Mellinghoff-Bourgerie 1990: 226: *Le héros est pourvu d'une qualité qui manque à tous ceux-là: le courage de ne pas s'abandonner aveuglément au surnaturel, mais d'affronter, au contraire, la réalité en se sachant seul et abandonné à ses propres forces, responsable de son destin, prêt à construire et à assumer ses fata* ("The hero is equipped with a quality that all the others lack: the courage not to abandon himself blindly to the supernatural. On the contrary, he faces reality, knowing he is alone and that he has been left to his own resources, responsible for his own destiny, ready to build and to take up his own *fata*").

[14] See Adler 2003: x: "Vergil is indeed persuaded by Lucretius' argument that we live in a godless world, but is also persuaded by other things that the propagation of this truth is harmful to human life." This attitude is prefigured by Williams 1983: 213: "In my view, the text of the *Aeneid* enjoins a reading that is entirely consistent with the theology of Epicurus [. . .] The gods are a narrative device, a fiction of the poet, a synecdoche of human attempts to explain an essentially hostile universe."

[15] See Monica Gale's critical review of Adler's book in *The Classical Review* 54: 376–38 (2004a) for further discussion of these issues.

[16] Kronenberg (2005) investigates Mezentius' impiety through the lens of Lucretian teachings, while Indelli (2004); Erler (1992); and Galinsky (1988: 335–37) argue for Virgil's engagement with Epicurean emotional theory, particularly that of Philodemus, in constructing Aeneas' anger. See also Cowan (2015) and Fish (2004) on Virgil's constructive engagement with Epicurean kingship theory.

I.1.3 Polemical Allusion

A third approach to Lucretian intertextuality in the *Aeneid*, and arguably the most influential in scholarship from the 1990s onward, is to interpret Lucretian references as instances of what Benjamin Farrington calls "polemical allusion." A number of compelling studies favor the idea that Virgil's use of Lucretian source material is fundamentally tendentious and philosophically adversarial, characterized by the use of Lucretian language to express distinctly anti-Lucretian sentiments.[17] Much good work has been done along these lines to elucidate a coherent program of Lucretian allusion in the *Aeneid*, and my present work builds upon these studies.[18] Philip Hardie, whose chapter in *Cosmos and Imperium* on Virgil's "remythologizing" of Lucretian cosmology represents the most comprehensive effort to date at applying this approach to the *Aeneid*, defines the strategy as "a very close and detailed dependence on the *De Rerum Natura* combined frequently with a total transformation of the content of Lucretius" (1986: 233).[19] In general, studies of this type focus on Virgilian allusions that appropriate the language of *de Rerum Natura* while pointedly excluding its original philosophical meaning.

The shared framework of polemical allusion and remythologization is particularly useful because it accounts for the possibility of both literary and philosophical dimensions to Virgil's Lucretian borrowings, while also positing a fairly consistent and comprehensive program of allusion. Tendentious allusions to Lucretius are frequent in the *Aeneid* and thus suggest that Virgil's Lucretian intertexts are indeed part of a bigger picture of "global inversions,"

[17] See Farrington's pithy formulation of this concept: "To reverse the religious and moral contents of the Lucretian world-picture while retaining the Lucretian vocabulary is Vergil's plan" (Farrington 1963/1999: 22).

[18] Though not from an exhaustive list, examples of "polemical allusion" readings can be found in Dyson (1996) and (1997); Farrell (1991) and (2014); Farrington (1963/1999); Gale (2000); Giesecke (2000); Gordon (1998) and (2012); Hardie (1986) and (2009); Weber (1995); and Wigodsky (1972).

[19] Cf. Hardie 2009: 178: "[The *Aeneid*] ends by realizing the 'epic' plot of Epicurus' career in the final victory of Aeneas, but at a point at which the hero of rational exploration has been turned back into a representative of the *religio* defeated by Epicurus." For a helpful summary of earlier approaches focused on polemical allusion, including the differing terminology of various scholars for what is essentially the same phenomenon, see Hardie 1986: 233 (esp. footnotes): "Jackson Knight speaks of *inversion* [1944: 91]; Farrington of *polemical allusions*; Heinze, Büchner, and Guillemin all see in Virgil the embodiment of an anti-Lucretius originally defined as an internal aspect of Lucretius himself; Buchheit uses the concept of *Kontrastimitation*."

as Hardie puts it, and not simply a random collection of incidental verbal echoes (1986: 234). Furthermore, Hardie links this style of hostile allusion to the manner in which ancient philosophers themselves argued, thus providing a plausible meta-literary dimension to Virgil's relationship to Lucretius: not only does Virgil invert and remythologize Lucretian doctrine at the local level, but in doing so, he also defeats the Epicurean philosopher with a variation of his own (Lucretius') polemical tactic, which is adopted from philosophical discourse.[20]

Among the various works that adhere to this anti-Epicurean interpretive framework, one particularly important group has focused on the ways in which Dido can be considered an Epicurean.[21] In these studies, the focus is not so much on the inversion of individual details in order to displace their original philosophical content, but on moments in which Virgil showcases Epicurean ethical teachings in a way that shows them to be impossible or undesirable. Julia Dyson Hejduk in Dyson (1996) summarizes this interpretation as follows:

> The Dido episode belongs to a larger pattern in which Virgil employs Lucretian language and imagery to contradict Lucretian doctrine: the words of the queen herself, of the narrator, and of other characters continually remind us of the Epicurean ideal even as they show it to be unattainable. (Dyson 1996: 204)

Even while allowing for the presence of certain philosophically meaningful details, such studies nevertheless conform to the overall pattern suggested by Farrington, Hardie, and others, in which Lucretian language is used to refute Lucretian doctrine. The key difference is that Hejduk and Gordon give more consideration to the tendentious *presence* of Epicurean philosophy in certain Lucretian intertexts in the *Aeneid*, while Hardie and others privilege passages in which doctrinal significance is *absent* from Lucretian intertexts.

[20] See Hardie 1986: 235 on the polemics of Greek philosophy: "One of the tactics of this polemic was to adopt the terms of reference of the opponent but to invert them so that the opposite message emerges."

[21] See especially Gordon (1998) and (2012), and Dyson (1996) and (1997). For a helpful summary of earlier treatments of Dido's Epicureanism, see Pease 1967: 36–37.

I.1.4 Polemical Allusion: A Synthesis

My own approach follows the consensus of "polemical allusion" scholarship that the *Aeneid* is profoundly hostile to key tenets of Epicurean philosophy, while I attempt to offer a more philosophically sensitive assessment of that hostility as *philosophical*, and not exclusively or predominantly literary. To do so, I combine an emphasis on close reading of precise verbal details with the interpretive focus of Hejduk and Gordon, who investigate passages in which Epicurean doctrines are alluded to without inversion, albeit still with a negative or tendentious purpose. Many of the studies cited in this Introduction illustrate allusions in which references to Lucretian physics and cosmology are emptied of their original Epicurean content. However, no one has yet done a comprehensive study of allusions to Epicurean physics and cosmology that *preserve* that content in some way. This is the shortfall that I aim to address. Although scholars have pointed out individual allusions throughout the poem—mostly pertaining to Epicurean ethics—where the original philosophical content of the Lucretian passage is preserved, I mean to show that there are actually quite a few such allusions that engage with atomic physics. I also mean to fit these details into a coherent whole that can tell us something about Virgil's reception of Epicurean natural philosophy.

This emphasis on atomic physics springs from two sources. First, ancient physics was a popular topic for Homeric critics interested in philosophical allegory, and the exegeses of these early literary scholars exerted considerable influence upon Virgil's own use of allegorizing details in the *Aeneid*.[22] Second, although critics ancient and modern have tended to focus upon the hedonistic ethics of Epicureanism as its defining characteristic, physics was foundational to Epicurean philosophy in a way that is unique among Hellenistic philosophies. According to Cicero, atomic physics was, in addition to being highly idiosyncratic when compared with other systems of cosmology, a source of special pride among Epicurean philosophers: *principio, inquam, in physicis, quibus maxime gloriatur* [*Epicurus*], *primum totus est*

[22] See Hardie 1986: 26: "the physical universe bulks large in the interests of allegorizers; the earliest preserved reports of Homeric allegorization are largely on cosmological matters." Cf. Thornton 1976: 18–19 for evidence within Virgil's poetry of his familiarity with ancient physics and with atomic philosophy. For more detailed discussion of the Greek allegorical interpretations of epic poetry and Virgil's reception of this tradition, see my discussions later in the present book.

alienus ("To begin, I said, it is in physics that Epicurus most greatly gloried; and in this, first of all, he is completely strange," Cic. *Fin*. 1.6.17; cf. 1.19.63). Although it is uncertain whether Cicero's judgment reflects the actual self-image of Roman Epicureans or simply an unfair stereotype of them, Lucretius' *de Rerum Natura* provides a rough quantitative measure of the importance of atomic physics for the Epicurean system of philosophy as a whole: of six books, the first four focus almost entirely upon minute atomic interactions, which are used as the principal evidence for why one should believe the ethical teachings of the Epicureans about pleasure, fear, love, and death.

In following this natural-philosophical thread, I seek to answer the question of what happens when Virgil alludes to Epicurean physics *without* inverting or displacing its philosophical content. Ultimately, this is a question about the worldview of the *Aeneid*.[23] It is my contention that such allusions do not endorse Epicureanism, but actually serve the larger polemical purpose of recasting the atomic world of Lucretius' poem as an ideological threat that must be defeated by the teleological cosmos of the *Aeneid*.

I.2 PHILOSOPHICAL ALLEGORY IN THE *AENEID*

The fundamental argument of this book is that Virgil uses images of atomic motion in the *Aeneid* as a metaphor for disorder, part of a larger allegorical narrative that assimilates Aeneas' personal struggles against various enemies into a cosmic conflict between order and disorder. Within this allegorical conflict, atomism functions as a sort of philosophical antagonist, an anarchic vision of natural philosophy over which Aeneas, who is generally aligned with natural, theological, and political forces of order, must ultimately triumph.[24]

[23] I occasionally use biographical information about Virgil to argue for or against his being familiar with a particular text or philosophical argument, insofar as that has any bearing on the text of the *Aeneid*. However, my arguments throughout this book focus on interpreting the text itself, rather than attempting to reconstruct the personal beliefs of its author. I offer some brief concluding thoughts on the place of Epicureanism in the Virgilian biographical tradition in Chapter 5.

[24] Thomas 2001: 11 carefully notes that, while there are many instances in the *Aeneid* in which ambiguous lexical or allusive details undermine Aeneas' (and Augustus') positive portrayal, such subversive details may not necessarily invalidate a more optimistic global interpretation of the poem as a whole.

I.2.1 Why Epicureanism?

Although the idea that the world follows a divine teleology claims adherents in many philosophical schools, atomism is one of the few ancient cosmologies that is systematic and system building, but embraces a non-purposive vision of nature. Thus, the triumph of Aeneas and Rome's future *imperium* may be interpreted through the lenses of any number of teleological philosophies, whereas disorder is typically cast as a specifically Epicurean phenomenon (philosophically speaking). To paraphrase John F. Kennedy, one might say that Cosmic Order in the *Aeneid* has a hundred fathers, while Cosmic Disorder is an Epicurean orphan. Granted, there are isolated moments of destruction in the poem that tap into other apocalyptic eschatologies, such as the Stoic *ekpyrosis*.[25] But even these details are typically harnessed to Epicureanism through a layer of intervening Lucretian intertexts, with the effect that virtually every philosophical vision of disorder and turmoil in the *Aeneid* becomes "Epicureanized" at some level.[26]

The notion of interpreting parts of the *Aeneid* or the poem as a whole in terms of philosophical allegory goes back to its earliest commentators.[27] As Hardie notes, natural philosophy and cosmology figured prominently in the early readings of Classical and Hellenistic critics, with whom Virgil was acquainted by virtue of his familiarity with Alexandrian and Pergamene scholarship.[28] By Virgil's own time, educated readers had access to a variety of allegorical interpretations of epic poetry, and even readers lacking expertise in the Greek tradition could find discussions of philosophical allegory in the more recent works of Roman authors such as Cicero (*N.D.*) and Varro (*Antiquitates Rerum Humanarum et Divinarum*).[29] In the centuries following the publication of the *Aeneid*, ancient commentators repeatedly affirmed the

[25] See Hardie 1986: 191–93, which documents references to apocalyptic floods and fires (in the spirit of *ekpyrosis*), especially in the burning of Troy.

[26] See Hardie 1986: 193, which lists Lucretian parallels in Virgil's descriptions of Troy burning.

[27] See Obbink 2010: 15: "It is surely the case that among the Greeks evidence for reading allegorically . . . is as old as any evidence we have for reading poetry." On the origins and development of allegoresis in Homeric criticism, see Feeney 1991: 8–11, 34–40, and Dawson 1992: 23–52. For the role of the Stoics in particular, see Zeller 1962: 354–69.

[28] See Hardie 1986: 26–28. For Virgil's use of the Hellenistic Homeric scholia in composing the *Aeneid*, see Schlunk (1974), *The Homeric Scholia and the* Aeneid.

[29] For a useful discussion of pre-Virgilian allegoresis in Roman criticism, including the possibility of Roman audiences' familiarity with such interpretations, see Wlosok 1987/1999: 394. Cf. Thomas 2001: 7–11 on the acknowledgment of lexical ambiguity and double meanings in ancient Greco-Roman rhetorical theories.

importance of philosophical allegory in both the composition and early reception of ancient epic poems, including the *Aeneid*.[30]

While Virgilian scholars interested in systematic studies of allegory have in the past tended to focus their attention on Book 6, where Stoic, Pythagorean, and Platonic models dominate, commentators since Servius have acknowledged the possibility of latent Epicurean meanings throughout the poem, either in isolated local details or underlying the work as a whole.[31] In the realm of natural philosophy, much has been written on Virgil's allegorizing of Epicurean cosmology and physics, with Hardie (1986) providing the most comprehensive study of such material in the *Aeneid*. Much of Hardie's work on "remythologizing" allusions is essentially allegorical, inasmuch as it demonstrates Virgil's interest in refuting Epicurean cosmology through veiled allusions and through metaphorical language that is suggestive of natural philosophy. Yet while Hardie advances an allegorical interpretation of the *Aeneid*'s narrative as a triumph of order over cosmic and political chaos, he deals only with those instances in which Lucretian details have been recruited to the cause of hierarchical order in a way that directly contradicts their original intent and meaning. While acknowledging the strength and validity of Hardie's analysis of intertextual moments that invert or displace Epicurean philosophy, I want to supplement that understanding of polemical allusion by also considering allusions to Lucretius in which that philosophical content remains intact and serves as the central focus of the allusive reference.

[30] See especially Serv. ad *Aen*. 6.719: *miscet philosophiae figmenta poetica et ostendit tam quod est vulgare, quam quod continet veritas et ratio naturalis* ("He mixes poetic fictions with philosophy, and in equal measure he shows both what is commonplace and what is encompassed by truth and natural reason"). Cf. similar comments at Serv. *Praef.* ad *Aen*. 6 and at 10.467; Sen. *Ep*. 88.5; and Macrob. *in Somn*. 1.9.8: *geminae doctrinae observatione praestiterit et poeticae figmentum et philosophiae veritatem* ("By his observance of a twofold style of learning, he showed both the fiction of poetry and the truth of philosophy").

[31] See Norden 1984: 20–23 for an overview of sources in Book 6. For early attempts to record Epicurean readings of local details, see, e.g., Serv. ad 4.210: *latenter secundum Epicureos locutus est* ("He has secretly said this in accordance with the Epicureans"). Servius' commentary on the *Aeneid* contains at least 33 similar notes, often phrased in a manner that implicitly argues against the proposed Epicurean reading, as in the comment ad 4.548: *aut secundum Epicureos, qui* stulte *solem de atomis dicunt constare et cum die nasci, cum die perire* ("Alternatively, [he wrote this] in agreement with the Epicureans, who *foolishly* declare that the sun is composed of atoms, and that it comes into existence when the days starts and perishes when the day ends"). Cf. Serv. ad 1.11, 227, 331, 743; 2.405, 515, 646, 689; 3.138, 587; 4.34, 210, 379, 548, 654; 5.81, 527; 6.11, 127, 239, 264, 272, 376, 596, 885; 7.4, 37; 8.187; 10.467, 487; 12.87, 794. For modern attempts at a universal Epicurean reading of the *Aeneid*, see the discussion of Adler (2003) and Mellinghoff-Bourgerie (1990) in the section " 'The Epicurean Aeneid.' "

I.2.2 Static versus Dynamic Allegory

I believe that the methodology of "polemical allusion" is fundamentally correct, and that Virgil's *Aeneid* consistently rejects Epicurean philosophy, both as a model of the universe and as a way of conducting one's life. To the extent that the narrative of the *Aeneid* can be interpreted as an allegory for competing cosmologies, that allegory is utterly opposed to Epicurean atomism. Yet one can think of this allegorical agenda as having two levels, one static and one dynamic, each of which employs Lucretian intertexts in different ways. The remythologizing allusions investigated by Hardie and others are essentially static, in that they presuppose a world of divine intention and order that gives no space to the possibility of a literal Epicurean atomic cosmos. Through the tactics of inversion and remythologizing, atomism as a physical reality is defeated, in a sense, before the poem even begins.

Yet what is missing from these studies is attention to the philosophical allegory as a dynamic process—a story. Against a backdrop of polemical allusions, which firmly establish the world of the *Aeneid* as one in which divine mythological figures direct nature and influence human affairs, Virgil also depicts an ongoing struggle throughout the poem's narrative, in which the stable cosmology of divine teleology and national purpose must face and overcome various forces of disorder. This struggle can be mapped onto Aeneas' journey from the ruins of Troy to the settlement of the Trojans in Latium, during which the possibility of cosmic and political anarchy is treated as a real threat, despite oracular assurances of Rome's eventual triumph.[32] I am interested in bridging the gap between Virgil's static polemical allusions, already well documented, and the more dynamic allegorical narrative just described.

My purpose, therefore, is not to refute Hardie's thesis of remythologization, but to supplement it by showing how allusive inversion works in concert with other often-overlooked allusions that import the imagery of atomism into the poem, using the atomic cosmology as a metaphor for disorder rather than displacing it entirely from the text. While advocates of polemical allusion tend to identify most Lucretian allusions as instances of inversion or remythologizing, the picture is more complicated. For instance, there are certain details in the *Aeneid* that seem to demand a didactic or philosophical

[32] For further discussion of this aspect of dynamic narrative in ancient allegory, see Dawson 1992: 4–5, 11–17. Even Lucretius' philosophical epic contains a narrative of sorts, as Gale 2004b: 52–57 demonstrates.

understanding of the source text (e.g., when Virgil uses the Lucretian didactic tagline *quippe* ("of course") to conclude a description of stormy weather; see pp. 57–58), and in such cases one should consider the philosophical background when assessing how the allusion works in the *Aeneid*. Yet often the choice of how much or how little of Epicurean philosophy to read into Virgil's Lucretian intertexts cannot be dictated by anything within the poem itself, but falls to our own subjective considerations of what makes for a stronger, more consistent reading of the poem. In the chapters that follow, I argue that we can achieve a better understanding of philosophical and political allegory in the *Aeneid* by allowing atomism into certain passages of the poem as a metaphor where it has previously been excluded by the scholarly consensus.

Ultimately, this approach will allow readers to synthesize elements of all three interpretive approaches to Lucretian intertextuality in the *Aeneid* as previously outlined. One way of thinking about this coordination of different intertextual methodologies is through the analogy of a theatrical performance. At the level of style and tone, Lucretian language performs an essential function simply by identifying the genre of the performance. In the same way that playbills, marquees, and the presence of actors on a stage tell you that "this is theater," the ubiquitous presence of Lucretian language in the *Aeneid* indicates in a very basic way that "this is an epic poem on a cosmic scale." Within this genre, remythologizing allusions of the static Hardian variety construct a sort of backdrop or stage decoration that indicates what kind of world the characters of the drama inhabit—specifically, a relatively stable mythological world in which, contrary to Lucretian teaching, the gods ultimately control the universe, regularly directing the affairs of individuals and peoples alike. However, the allegorical drama that takes place on that stage—the narrative of the poem—conveys a dynamic conflict between Order and Disorder. By consistently associating atomic imagery with doubt, hesitation, violence, and disorder, Virgil casts Epicurean physics in the role of an allegorical antagonist, opposed to numerous symbols of Roman order and progress, which include Aeneas, Augustus, Roman *imperium*, and the Homeric gods, along with various teleological philosophies and Roman religious cults.

In a literal sense, I will not be arguing that Epicurean atoms really "exist" at any moment within the physical world of the poem. Instead, atomism serves as a symbol of the disorder that arises in the absence of hierarchy and purpose, not just in the physical world, but in political, cosmic, and religious contexts as well. Therefore, atomic imagery functions primarily as a metaphor within

the fiction of the poem—one that illustrates both the undesirability and the inherent danger or instability of a non-teleological universe, if it were actually to exist. Nevertheless, Virgil's well-documented tendency to allusively (and allegorically) conflate the realms of physics, politics, and theology tends to problematize any search for a "real" or "true" physical world that can be neatly separated from its metaphorical portrayal. In the final analysis, I believe that Virgil's epic is concerned more with ideology than with ontology, and thus my interpretive focus remains on the allegorical implications of atomism's negative portrayal: namely that the repeated association of atomism with hesitation and failure signals a rejection of non-teleological models of order both in cosmology *and* politics.

In advancing this argument, I also hope to blur some of the sharp lines that separate philosophical and poetic interpretations in contemporary literary criticism of the *Aeneid*, and to push back against the idea that philosophy in Virgil is always (or even mostly) subordinated to poetic concerns. By showing the interdependency between philosophical doctrines and poetic context in many of Virgil's Lucretian borrowings, this study advances an understanding of philosophy and poetry in the *Aeneid* as being deeply complementary, rather than dichotomous. As Don Fowler has argued in the context of the *de Rerum Natura*, this dichotomy is an artificial one that reflects the purposes and biases of scholars more than poets, and never more so than in the ancient world:[33]

> The celebrated opposition between philosophy and poetry in the *De rerum natura* can to an extent be rephrased in terms of an opposition between the differing reading practices of two interpretative communities. The frontier between the "philosophical" and "literary" traditions is not itself, of course, timeless, and how close or distant they are from each other will depend on the nature of the philosophical or literary-critical positions adopted by readers as well as on the general intellectual climate. (Fowler 2000: 138)

If we attend to the moments in the *Aeneid* that engage with philosophy *as philosophy*, then we will discover that the text advances a vision of cosmology

[33] Compare the similarly perceptive comment by Feeney about the dismissive attitude of earlier religious-studies scholars toward literary evidence in their assessments of Roman practice: "'The challenge is to put the right adverb in front of the word 'literary': not 'merely,' but 'distinctively'" (1998: 41). When considering Lucretian intertexts in the *Aeneid*, one could substitute "philosophical" where Feeney says "literary."

and society that thoroughly rejects the worldview of Epicurean physics in favor of top-down models of order and authority. In the chapter that follows, I begin by tracing the history of atomic physics, in order to better understand the cultural and philosophical sources for Virgil's tendentious portrayal of atomism. For in light of ancient evidence that Virgil studied under the guidance of Epicurean philosophers in the Bay of Naples, we must first ask from what sources this anti-atomist orientation stems, since it is conspicuously not that of the Epicureans themselves.

1

Characterizations of Epicurean Atomism

> *Tandis que les autres philosophes admirent l'ordre de l'univers au point de ne pouvoir attribuer un si bel arrangement qu'à une intelligence souveraine pleine de sollicitude pour l'homme, le poëte épicurien ne voit partout qu'une incurie désordonnée dont il fait un argument contre la croyance à une création divine . . . Ainsi le désordre règne dans le monde.*
>
> —Benjamin-Constant Martha, *Le poëme de Lucrèce* 1869: 339–40, 341

> While the other philosophers so admire the order of the universe that they are unable to attribute such a beautiful arrangement to anything but a sovereign intelligence that cares for humanity, the Epicurean poet everywhere sees nothing but disorderly neglect, from which he argues against belief in a divine creation . . . And so disorder reigns in the world.
>
> —Benjamin-Constant Martha

Before we consider Virgil's deployment of atomic imagery in the *Aeneid*, it will be helpful first to examine how atomism is portrayed across a variety of philosophical texts prior to the time of the poem's composition in the late 1st century BCE. For, while Lucretius' didactic epic provides virtually all of the intertextual raw material for the allusions to atomism in the *Aeneid*, there existed in Greco-Roman philosophy an opposing tradition of anti-materialist and anti-atomist arguments that deeply influenced Virgil's tendentious reception of Epicurean physics. It is my argument that, although Virgil does not explicitly reference these critiques when alluding to atomism, they nonetheless shaped his use of atomism as a symbol of cosmic and political disorder.[1]

[1] Cf. Hardie 1986: 235–37, who makes a similar claim about Virgil deriving his polemical attitude toward Lucretius from Lucretius' own tendentious treatment of other philosophers and therefore from philosophy more generally.

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The focus upon explicitly *philosophical* texts in this chapter, as opposed to "literary" and critical texts, is not incidental. One key point that differentiates Virgil's allegorical engagement with Epicureanism from his engagement with other philosophies is the comparative dearth of possible Epicurean source texts from other genres. While Virgil had access to a vast body of Homeric exegesis that posited Stoic, Pythagorean, Heraclitean, Empedoclean, and various other interpretations of epic poetry, there existed no comparable tradition of allegorizing Epicurean literary criticism upon which to draw.[2] Consequently, it is likely that the Epicurean allegorical material in the *Aeneid* is not mediated through a literary-critical or scholiastic tradition, but derives principally from direct engagement with philosophical texts.[3]

In addition, there is a long-running tradition, attested in a variety of sources since the 30s BCE, connecting Virgil to a circle of Epicurean philosophers in the Bay of Naples that included Philodemus and Siro.[4] According to two poems in the *Appendix Vergiliana* (*Catal.* 5 and 8), Virgil studied philosophy under Siro, and therefore would have enjoyed exposure to a range of philosophical texts, both Epicurean and otherwise.[5] On the basis of the wide variety of philosophical works attested in the ruins of the Villa dei Papiri at Herculaneum, once a center of Roman Epicurean life on the Bay of Naples and the principal repository for the library of Philodemus, one can reasonably conclude that Virgil read widely in philosophy, in much

[2] On this point, see Gale 1994: 26.

[3] An important exception is the comparison between the Phaeacians of Homer's *Odyssey* and Epicureans, detailed at Gordon 2012: 38–46. However, as Gordon acknowledges, the early sources for this comparison are scant, and it is difficult to determine if the Phaeacian allegory arose as an endorsement of Epicurean ideals or as a criticism adopted at a later date under the empire. For further reading on Virgil's access to the philosophical readings of non-Epicurean schools of philosophy through scholia and commentaries, see Feeney 1991: 34–40; Wlosok (1987/1999); Hardie 1986: 5–32; and Schlunk (1974).

[4] See Armstrong 2004: 1–3. As Chambert 2004: 45 notes, "Neither Vergil's presence at Siro's school nor his reading of Lucretius can be disputed." Evidence for these connections can be found in the *Catalepton*, Servius' comments on *Eclogue* 6.31ff. and late-antique Virgilian *Vitae*. The acquaintance between Virgil and Philodemus is confirmed by a fragment of Philodemus (*P. Herc. Paris.* 2, piece 279 A), which records Virgil's name alongside that of Plotius and Quintilius Varus; see Gigante 1995: 47 n. 125.

[5] See Verg. *Catal.* 5.8–10 and 8.1–6. The papyri fragments found in the Epicurean library at the Villa dei Papiri in Herculaneum, destroyed in 79 CE by the eruption of Mt. Vesuvius, contain works by non-Epicurean philosophers in addition to those of Epicurus, Philodemus, and other Epicurean writers. See Gigante 1995: 3–4. Although this collection dates from a century after Virgil and Philodemus, there are strong reasons for supposing that it contains Philodemus' own library collection as its core. For more on the question of Philodemus' role in the collection of texts at the Villa dei Papiri, see Gigante 1995: 17–28.

the same way that he did in poetry from diverse genres. Thus an important legacy of Virgil's association with the Greek culture of Naples was not only literary, but philosophical as well.

At the beginning of this chapter, I offer a concise history of ancient atomism, followed by a more exhaustive review of its varying reception, detailing wherever possible the metaphors and analogies used to support or attack pro-atomic arguments. For each philosopher, I consider which arguments, analogies, and images he uses to characterize atomism, as well as how such images are deployed and to what purpose.[6] The reason for my focus on metaphorical language is twofold. First, the use of comparison or analogy is a foundational methodology shared by both epic poetry and philosophical discourse in the Greco-Roman tradition, and both of these genres make regular use of explicit comparisons (similes and analogies) as well as implicit ones (metaphors and other figurative language). By the same token, much of early Greek philosophy was written in a format and style resembling epic poetry, and subsequent poets and philosophers writing in the wake of this tradition regularly adopted images from one another's works. In the later chapters of this book, by continuing to trace the overlap in how epic poetry and philosophy use metaphorical language to discuss cosmology, I aim to resist a persistent tendency in Virgilian scholarship to subordinate philosophical arguments to literary aims, and to show instead the interdependence of philosophical and literary agendas in Virgil's Lucretian borrowings.

By documenting the tendentious metaphors employed by philosophers in the debate about atomism, I hope to illustrate the philosophical precedents for Virgil's own tendentious allegorizing of atomism as a force of disorder, which mirrors a popular strain of anti-materialist thought in Greco-Roman philosophy. While I suspect that Virgil was likely familiar with most, if not all, of the texts discussed in this chapter (both Greek and Latin), it is not my intention to prove this familiarity definitively with respect to every author. Indeed, Virgil need not have been familiar with any one particular philosopher to absorb the anti-atomist attitude evident in the *Aeneid*. Rather, by presenting the long pedigree of anti-atomist arguments that associate atomic

[6] I have adapted this approach from Lloyd 2015, chap. 3: "Analogies, images and models in ethics: some first-order and second-order observations on their use and evaluation in ancient Greece and China" (43–57). Although Lloyd is more interested in the use of analogy and metaphor in *ethics*, he touches on a number of cosmological examples as well.

physics with disorder, I mean to show that Virgil might have encountered this attitude from his exposure to any number of popular philosophers, and that the anti-atomist position was shared by widely differing sects and individuals.

The second reason for focusing on metaphors is that, in a cosmological context, figurative language reflects implicit assumptions about one's worldview that are often as revealing as the formal arguments they accompany, if not more so. Consciously or not, clusters of related metaphors powerfully influence how one conceptualizes the world, and it is a mistake to entirely separate this type of analogizing from more "formal" argumentation in philosophy.[7] It is frequently the case in discussions of atomism that the terms of a formal argument are limited in some way by the adoption of a particular analogy or mental image, and so it is worth the effort to investigate those images and probe them for their assumptions. Analogical reasoning is a common tactic in anti-materialist arguments, and in many cases such images or analogies point to deeply held assumptions about the need for some form of authoritative cosmic oversight to ensure purpose and stability in the natural world.

In the sections that follow, I begin by outlining the doctrines of the early atomists, along with two consequential emendations that were introduced by Epicurus. I then proceed to consider the reception of Democritus and Leucippus in Aristotle, who provides the earliest explicit arguments against atomism, and in Cicero, who preserves evidence of Stoic and Skeptic attitudes in the Hellenistic period. Last, I discuss Lucretius' embrace of the epic genre in *de Rerum Natura*, which opened up Epicurean physics to a host of new metaphors and analogies imported from Homer, Ennius, and others. I conclude by arguing that the ideas and metaphors of the various anti-atomist philosophers exerted a powerful influence on Virgil's reception of Lucretius in the *Aeneid*, providing a theoretical framework with which to understand the many allusions to atomism scattered throughout the poem.

[7] The great extent to which our conceptual understanding relies upon metaphorical frameworks is extensively documented and persuasively argued in Lakoff and Johnson (1980). Their paradigmatic example of this tendency, which is relevant to the following discussions of atoms being metaphorically depicted as warlike or violent in Lucretius and Cicero, is the widespread use of the "argument as war" metaphor in western cultures (3–6).

1.1 EARLY ATOMISM: DEMOCRITEAN ORIGINS AND EPICUREAN CONTRIBUTIONS

Atomism originated with Leucippus and Democritus in the late 5th century BCE, emerging from a Greek tradition of natural philosophy that sought to rationally explain the nature of the universe, its composition, and how it functioned.[8] Although direct evidence about atomism from the works of Leucippus and Democritus is extremely limited, later philosophers and doxographers provide abundant testimony, from which it is possible to outline the major tenets of the system.[9] According to this doxographical tradition, Leucippus invented atomism, which Democritus then systematized into a coherent doctrine built upon a core set of materialist principles: that the universe is composed entirely of atoms and void; that atoms move through the void and come into contact with one another according to universal laws; that natural phenomena, such as birth, death, and cognition, can be explained as mechanistic consequences of atomic motion and collision; and that there exist an infinite number of discrete and perishable worlds within the universe, which is itself eternal in duration and infinite in size.[10] In this original formulation of atomism, Democritus explained all causation as a result of the mechanical interactions between atoms governed by immutable laws of motion, thus yielding a thoroughly deterministic and materialist cosmology.[11]

While Leucippus and Democritus were evidently motivated by a desire to respond to the daunting arguments for monism articulated by Parmenides in the early 5th century, their materialist theory also represented a striking conceptual innovation by formulating the first coherent challenge to the notion of divine intelligence as a causal principle in the material world. As David Sedley points out, divine causation was widely assumed in pre-atomic philosophy, and philosophers from Anaxagoras to Empedocles either asserted or assumed divine intelligence (νοῦς) as an organizing principle of the world.[12]

[8] See Taylor 1999: 158–59. For discussion of probable dates for Democritus, see Sedley 2007: 134–35.

[9] See Taylor 1999: xi: "the evidence for the atomists presents the peculiar feature that, while the number of purported fragments is large, very few fragments deal with the atomists' central doctrines, for which we are almost wholly reliant on doxographical evidence."

[10] For detailed accounts of the development of early atomism, along with explanations of its major doctrines, see Taylor (1999) and Bailey (1928).

[11] See Taylor 1999: 188–95.

[12] See Sedley 2007: 2: "That the world is governed by a divine power is pervasive assumption of Presocratic thought." For a detailed defense of this position by Sedley, see chaps. 1 on Anaxagoras (1–30) and 2 on Empedocles (31–74), as well as the section on Diogenes of Apollonia (75–78).

Even early "material monists" like Thales, Anaximander, and Anaximenes appear to have assumed the agency of some pantheistic divine power or intellect in the natural world, although explanations of that agency could vary substantially from philosopher to philosopher.[13]

In contrast, atomism was the first wholly materialist explanation of the universe, subordinating the existence and action of divine entities to the same material basis of atoms and void shared by the rest of the universe.[14] While Democritus did not deny the existence of gods, his mechanical theory of atomic motion obviated the need to appeal to them as the cause of natural phenomena. However, even within this materialist framework, Democritus allowed the gods some influence in the world, attributing prophetic abilities to them.[15] Later, when Epicurus modified Democritus' doctrines, he took this materialist theology to its logical conclusion and entirely excluded gods from participation in the human world—a shift that led certain detractors to accuse him of hidden or de facto atheism.[16]

In formulating his own version of atomism about a century later, Epicurus hewed closely to the core tenets of Democritean atomism that denied divine oversight of the world, while introducing a few notable changes, including finite variability in the shapes of atoms, and the spontaneous atomic swerve.[17] The first innovation, which limited the number of possible atomic shapes, served to rescue atomism from the extreme unlikelihood of a complex, orderly world forming from the arbitrary collisions of differently shaped particles. According to Democritus, atoms existed in an infinite variety of shapes, which, colliding and re-colliding over an infinite span of time, led to the formation and dissolution of an infinite variety of worlds, including our own.[18] However, as Sedley notes, this infinite variety of shapes does not

[13] So Sedley 2007: 6–7, which states that "most other early thinkers tended to characterize the world's underlying matter as if it were itself divine, if not indeed identifiable with god." In a footnote to that passage (n. 19), Sedley collects evidence of this attitude regarding Thales (Arist. *de An.* 411a7–8), Anaximander (Arist. *Ph.* 203b11–15), and Anaximenes (Aetius 1.7.13; Cic. *N.D.* 1.10.26).

[14] Sedley 2007: 133–34. Taylor 1999: 188–95 summarizes Democritus' positions on determinism and the denial of providence.

[15] Cicero, Plutarch, and Sextus Empiricus all report that Democritus conceived of the gods as atomic *eidola*, and that these *eidola* could be harmful or beneficial to humans, although there is disagreement about whether these effects were the natural effects of atomic interactions or of the intentions of the gods themselves. For sources and further discussion, see Taylor 1999: 211–16.

[16] See Cic. *N.D.* 2.30.76; Plut. *Adv. Col.* 1119e–f, and *Non posse* 1101b.

[17] See Taylor 1999: 159–60. See also the section titled "Democritus and the Epicurean Tradition" for a fuller collection of relevant testimonia about continuity and change in Epicurus' reception of Democritus (Taylor 1999: 150–56).

[18] On the infinite variety of shapes in Democritean atomism, see Arist. *Gen. corr.* 315b6–15; Simpl. *in Phys.* 28.4–27. On the infinity of worlds, see Simpl. *in Phys.* 1121.5–9; Philoponus *in Arist. Phys.*

guarantee that our world, or any world like ours, would form, nor does it even ensure its likelihood. On the contrary, it remains overwhelmingly unlikely that orderly worlds would arise from a chaotic maelstrom of wandering atoms.[19] While the fortuitous formation of our world along such lines is still technically possible, its improbability considerably diminishes the attraction of the Democritean model.

In response to this problem, Epicurus abandoned the infinite variety of atomic shapes, instead positing a vast, but ultimately finite, number of variations.[20] As a consequence of this shift, Epicurus strengthened the argument that all possible worlds would eventually form by atomic collision, provided that such collisions operated over an infinite span of time. If one accepts the premise of an atomic universe, then Epicurus, by bringing an infinite span of time to bear on a large—but still finite—set of atomic variations, secured not just the likelihood but also the inevitability of our world forming on a purely fortuitous, mechanical basis.[21]

By making these small yet consequential changes to the atomic theory, Epicurus was responding primarily to skeptics who doubted the possibility or probability of organized and purposive structures in our world occurring by chance collisions. As the following sections on the later reception of atomism demonstrate, such doubts about the compatibility of atomic physics with cosmic order loom large in critiques of Epicureanism. Indeed, the effort devoted by Epicurus to anticipating or refuting those criticisms bears witness to the centrality of randomness and chance in the larger debate about materialism and divine intelligence in the natural world.[22] However, Epicurus' emendations left the issue far from settled, and while the shift to a finite number of atomic shapes effectively defended Epicurean physics against the impossibility of atomic collisions producing our structured world, criticisms

405.23–27. These passages, along with further testimonia, can be found in English translation in Taylor 1999: 69–90, 94–98.

[19] For a fuller treatment of the statistical basis of this unlikelihood, see Sedley 2007: 160–61.

[20] See Epicurus *Ep. Hdt.* 42.10–12: καὶ καθ' ἑκάστην δὲ σχημάτισιν ἁπλῶς ἄπειροι εἰσιν αἱ ὅμοιαι, ταῖς δὲ διαφοραῖς οὐχ ἁπλῶς ἄπειροι ἀλλὰ μόνον ἀπερίληπτοι ("And for each shape there are an infinitude of similar atoms, but there are not an infinite number of different shapes—only an incomprehensibly large number"; translation adapted from Arrighetti [1973]). For the technical arguments underlying this claim, which rely upon the assumption of a mathematically indivisible smallest magnitude (τὸ ἐλάχιστον), see Long and Sedley 1987: 39–44. For an account of how this change responds to certain Aristotelian critiques of Democritean atoms, see Furley 1967: 111–29.

[21] See Sedley 2007: 161–66, who explains the probabilistic consequences of Epicurus' decision to limit the variety of atomic shapes.

[22] A point stressed throughout Sedley 2007, particularly at 133–36, which investigates the atomists' conflicts with philosophers who posited a divine creation or explicitly teleological cosmologies.

about the implausibility of that order arising from random collisions continued to be a centerpiece of anti-atomist arguments for centuries.

The second major change made by Epicurus, which had a lasting impact on the reception of atomism as a cosmology of illogicality and disorder, was the introduction of the atomic "swerve" (παρέγκλισις, or *clinamen*), an occasional spontaneous alteration of an atom's trajectory by the smallest possible magnitude.[23] Although no explanations of the swerve in Epicurus' own words remain, it is one of the most widely reported—and criticized—features of his philosophy.[24] According to Lucretius (2.251–93), the swerve was supposed to allow for the exercise of free will, and a passage by Diogenes of Oenoanda shows that Epicurus formulated the idea specifically as a response to the strict determinism of Democritean atomism.[25] In practice, however, this innovation to the mechanics of atomic motion did little to sway skeptics, instead provoking some of the harshest criticisms of Epicurean physics in the ancient world. Above all, opponents of atomism found the swerve problematic because it lacked any discernible cause, thus violating one of the principal tenets of Epicurean physics that "nothing comes from nothing" (*nullam rem e nihilo gigni divinitus umquam*, Lucr. 1.150).[26] In the eyes of detractors, Epicurus' swerve rescued atomism from one extreme of determinism, only to plunge it into the opposite extreme of illogical randomness and caprice.[27]

Epicurus refined Democritus' atomic theory in other minor respects, but it was primarily his explanation of the way seemingly purposive worlds form through fortuitous atomic collisions, coupled with his insistence upon the spontaneous swerve, that provoked the greatest opposition to Epicurean physics. It is equally important to note that, in arguing for these changes, Epicurus evinced little interest in figurative language, in stark contrast to

[23] Evidence that the swerve was thought to move only one "minimum" is found in Lucr. 2.244, Phld. *de Signis* 36.54.12–13 (p. 79 in De Lacy and De Lacy [1978]); Cic. *Fat*. 22. See Long and Sedley 1987: 52.

[24] So Bailey 1928: 317 states, "The most scathing criticism has been directed against this notion of the 'tiny swerve' both by ancient and by modern writers." Sources for the swerve include Lucr. 2.216–93; Cic. *Fat.* 21–25; *Fin.* 1.6.19; Plut. *Mor.* 964c–d; and Diogenes of Oenoanda 32.1.14–3.14. For commentary, see Long and Sedley: 1987: 52, 107–12.

[25] Diogenes of Oenoanda 32.1.14–3.14.

[26] See Bailey 1928: 317: "This is indeed the line of attack which has been most usually adopted: this 'swerve' of the atoms is a contradiction of the 'laws of nature' (*foedera naturai*) on which Epicurus' system is based: it is a breach of his own first principle that 'nothing is created out of nothing,' for it is a force absolutely without a cause."

[27] For more on this criticism, see Section 1.3: "Stoics and Skeptics: The Ciceronian Evidence," this volume. Cicero highlights this shortcoming in a number of his dialogues: *N.D.* 1.25.69–70; *Fat*. 22–23, 46–48; and *Fin.* 1.6.19–20, even referring to the swerve once as a "childish fiction" of Epicurus' (*res ficta pueriliter, Fin.* 1.6.19).

later critics who frequently used ironic or tendentious metaphors to press their point against atomism. On the contrary, Epicurus was famously suspicious of poetry and rhetorical adornment, and his extant writings bear little evidence of colorful metaphorical language.[28]

In fact, until Lucretius' *de Rerum Natura*, Epicureans writing after the death of Epicurus seem to have closely followed their founder in eschewing figurative language to describe natural philosophy. Although Usener's collection of *Epicurea* preserves hundreds of fragments that attest dozens of prose works by later Greek Epicurean writers, the extant descriptions of atomism remain quite conservative in their use of metaphor and personification.[29] Among the early Epicureans, this caution makes sense both for doctrinal and for methodological reasons. First of all, as a non-teleological thinker who denied that the gods played an active role in the human world, Epicurus was keen to separate the notion of intelligence from the primary elements of atoms and void, preferring to explain consciousness and intention as secondary qualities arising from atomic collisions in the soul. Early followers of Epicurus may have been reluctant to compare atoms to people in order to avoid the danger of others improperly projecting human traits, like intelligence or emotion, back upon the unfeeling atoms and thereby muddling the distinction between primary and secondary qualities.[30]

A second factor that likely influenced the early Epicurean tendency to avoid figurative language in discussions of physics is that, for the Epicureans, analogy and comparison were fundamental methodologies for

[28] See Diog Laert. 10.121; Epicurus fr. 33 to Pythocles, and fr. 24 to Apelles. For the scarcity of political metaphors in Epicurus' writing, which were otherwise widespread among ancient philosophers, see Reinhardt 2005: 171. For a similar lack of military metaphors in Epicurus, see Gale 2000: 232, esp. n. 2. For a general discussion of the available evidence concerning Epicurus' attitude toward poetry, see Clay 1995: 3–14. While some of the vocabulary that Epicurus uses to describe atomic impacts can connote human violence, such as ἐκθλίβω ("to force out"), he largely avoids similes and extended metaphors.

[29] Although the extant fragments skew overwhelmingly toward discussions of ethics, Usener still collects over 90 pages of fragments and doxographical commentary concerning Epicurean atomism under the heading of *Physica* (1887: 191–262). Of these varied sources, many of which date from much later periods, the direct quotations and paraphrases of pre-Lucretian Epicurean writers uniformly attest a striking absence of extended metaphor or allegory. A major problem, of course, is the scarcity of available evidence. Among Latin-speaking Epicureans (with the obvious exception of Lucretius), the record is even sparser: although Cicero states that Italian Epicureans were some of the earliest figures to write philosophy in Latin, we are left with the names of only a few Latin Epicurean authors, Amafinius, Rabirius (Cic. *Ac.* 2.6; *Tusc.* 4.3.6–7), and Catius (*Fam.* 15.16.1), along with 12 lines from a poem titled *de Morte* by the Augustan-era Epicurean poet Varius, which does not deal explicitly with atoms (Hollis 2007: 254–55, 263–73).

[30] Cf. Philodemus' response to a Stoic critique of atomism, discussed later, at pp. 27–28.

philosophical investigation and, as such, were subject to strict standards of rigor.[31] Epicurean physics and epistemology essentially posit two worlds, a sensory world encountered through the secondary qualities that arise from atomic collisions, and the primary world of atoms and void, which can be apprehended only rationally. As Andrew Pyle explains, this division assigns immense importance to the correct use of analogy as a means for grasping the truth about the atomic world:

> Enquiry about the nature of this second "world" must pursue an *analogical* method: we have no choice but to characterise it in terms of concepts derived from the more familiar world of the senses. A judicious and careful use of analogy is therefore essential to Epicurean scientific method: one cannot begin to understand Lucretius in particular until one has grasped the rôle played by analogical reasoning in *de Rerum Natura.* (Pyle 1997: 129)

Of course, any conclusions about early Epicurean tendencies must be tempered by the paucity of extant texts, but the concern for "judicious and careful use of analogy," as Pyle puts it, provides a plausible basis for Epicurean conservatism in the realm of metaphor, particularly when describing the rationally apprehended world of atoms and void.

Even in the late-Hellenistic works of Philodemus, who wrote his own poetry and sought to expand Epicurean philosophy into the realm of aesthetics, we find the same semantic caution applied to the use of figurative language in philosophical prose.[32] Unfortunately, because of the lacunose state of the evidence and to Philodemus' own apparent preference for subjects other than physics, we possess few descriptions of atomic motion in the many fragments of Philodemus from Herculaneum.[33] However, as previously noted, the few descriptions of atoms that we do possess exhibit no figurative language, let alone the type of colorful metaphors that one finds regularly in Lucretius, or in the anti-atomist passages of Cicero. Thus, when Philodemus touches upon the atomic composition of divine bodies in the doxographical section of *de Pietate* (especially cols. 1–18), or briefly mentions the swerve at *de*

[31] For Epicurus' cautious approach to the use of metaphor in his philosophical arguments, see Garani 2007: 151–53.

[32] See Garani 2007: 153, who cites two passages in which Philodemus mentions metaphors: *Rh*. 4 col. xv 15–18 and col. xxi 8–15.

[33] For Philodemus' focus on ethics and aesthetics, see Tsouna 2013: xi–xii. The full list of titles of Philodemus' philosophical works reveals a strong preference for topics other than physics; for which, see the introduction to Delattre 2007: xlviii–lii.

Signis 36.54.7–17, he does so in a dry, technical fashion, either paraphrasing Epicurus or excerpting from earlier works.[34]

While Philodemus' fragmentary texts generally reveal a strong bias toward ethics and aesthetics, there are a few brief discussions of word usage from which it is possible to better understand the philosopher's attitude toward metaphor. First, in a passage of *de Oeconomia*, Philodemus sharply criticizes Socrates in Xenophon's *Oeconomicus* for twisting the meanings of words beyond their customary usage, especially in extended metaphors (e.g., when he portrays property owners as "slaves" to their vices, which are in turn "masters" over the owners).[35] As Voula Tsouna points out in a comment on this passage, Philodemus might have inherited this wariness about stretching the meanings of words beyond their ordinary usage from his Epicurean teacher, Zeno of Sidon, who had similar concerns about multivalent language.[36]

A similarly illuminating example of Philodemus' cautious attitude toward metaphorical analogy is preserved in *de Signis*, a treatise that deals in part with logical inference. There, Philodemus records a Stoic critique of Epicurean physics presented in the form of two syllogisms:[37]

> Ἔτι δὲ κατὰ τὴν ὁμοιότητα μεταβατέον·] ἐπεὶ πάντα τὰ παρ᾽ ἡμῖν σώματα χρόαν ἔχει, σώματα δ᾽ εἰσὶ καὶ αἱ [ἄτ]ομοι, κἀκεῖναι χρόαν ἔχουσιν· ἐπεὶ πάντα τά [παρ᾽ ἡ]μῖν σώματα φθαρτὰ ἔτ[᾽ ἐστίν, σώμ]ατα δ᾽ εἰσὶ καὶ αἱ ἄτομοι, φθαρτὰς εἶναι ῥητέον {α} καὶ τὰ[ς ἀ]τόμο[υ]ς. (*de Sign*. 5.7.1–7)
>
> [The Stoics suppose that one ought to infer by analogy as follows:]
> "Since all bodies in our experience have color, and atoms too are bodies, atoms too have color. Since all bodies in our experience are destructible, and atoms too are bodies, atoms must be said to be destructible."

When Philodemus rebuts this argument in a later section, he attributes the error of the Stoics to their sloppy use of analogy, by which they apply irrelevant qualities of the perceptible living "bodies" of everyday experience to imperceptible atomic ones:

[34] See Obbink 1996: 281–83.

[35] *De Oec*. I.19–21; IV.1–16, 29–34; V.2–4; VI.16–18.

[36] For Zeno's concern with the ambiguity of words, see Tsouna 2013: 86, n. 19. For a similar discussion critiquing the Stoics' applications of the term "softness" to physical bodies, see Philodemus *de Mus.* IV col. 61 (=Delattre 2007: 122).

[37] Translations of *de Signis* are taken from De Lacy and De Lacy 1978. Cicero records a similar argument against the Epicureans' use of analogy at *N.D.* 1.35.97–98, spoken by Cotta.

> Οὐχ ὑγ[ιὴς] δὲ λόγος ἐστὶν οὐδ᾽ ὁ παρακε[ί]μενος. οὐ γὰρ εἰ ἐπί τινων ἱκν [ού]μενός ἐστ[ι]ν ὁ κατὰ τὴν ὁμο[ι]ότητα τρόπος περιοδευόντ[ων] ἡμῶν τῶι ἐπιλογισμῶι δεό[ν]τω[ς τ]ὰς ὁμοιότητας, διὰ τοῦ[το] καὶ ἀφ᾽ ὧν ἔτυχε κοινοτήτω[ν] σημειωτέον περὶ ὧν ἔτυχε[ν]. εὐθέως γὰρ [τ]ὰ παρ᾽ ἡμῖν σώματα [ο]ὐχ ἧι σώματ᾽ ἐστὶν φθαρτά ἐστιν ἀλλ᾽ ἧι φύσεως ἠναντιωμένης τῆι σωματικῆι καὶ εἰκτικῆς μετείληφεν. ὁμοίως δὲ χρώματ᾽ ἔχει τὰ παρ᾽ ἡμῖν σώματα οὐχ ἧι σώματ᾽ ἐστίν. (*de Sign.* 17.25.28–18.25.5)
>
> [25] [This] argument also is not valid. It is not the case that if the method of analogy reaches to some things when by empirical inquiry we make a comprehensive search for the similarities in the way that we should, for that reason inference should be made from any chance common qualities about any chance objects. The simple truth is that bodies in our experience are destructible not insofar as they are bodies, but insofar as they partake of a nature opposed to the corporeal and non-resistant. Similarly, bodies in our experience have color, but not insofar as they are bodies.

Like the criticism about Socrates in Xenophon's *Oeconomicus*, Philodemus' complaint against the Stoics here rests upon their improper extension of attributes in a metaphorical comparison.[38] This skepticism toward metaphor is entirely consistent with the available evidence for Epicurus' own style of philosophical writing, and with the doctrinal and methodological considerations concerning analogy previously mentioned. Although any effort to generalize about Epicureanism prior to Lucretius is hampered by the loss of the great majority of texts from the Hellenistic period, all available evidence supports the idea that early Epicureans made limited use of figurative language and metaphors in explaining atomic physics, and that it was not until Lucretius that such comparisons were used in any systematic fashion.

To conclude the section on the development of early atomism and Epicurean physics, I offer three observations that seem to be of the greatest relevance in explaining the subsequent reception of atomism: (1) Aside from Epicurus' addition of the swerve and of atomic minima, Epicurean reception of Democritean atomism is doctrinally conservative, and thus subject to many of the same theoretical criticisms. (2) The greatest points of contention

[38] Cf. Lucr. 1.1021–8, where Lucretius cautions against imagining some intelligent designer using *consilio* ("deliberation") or *sagaci mente* ("a wise mind") to influence the atomic universe. Fowler 1989: 146–47 interprets this passage as a warning not to take the social metaphors about atomic *concilia* ("assemblies") and *foedera* ("treaties") too literally.

concerning atomism arise from its non-teleological cosmology and from Epicurus' doctrine of the swerve. (3) Early Epicureans are cautious in their use of figurative language to describe atomism, and make infrequent use of metaphors to describe atoms. It seems safe to say, on the basis of this last observation, that Virgil, whose allusions to atomism in the *Aeneid* are thoroughly metaphorical (e.g., conflating the motion of soldiers on the battlefield with the collisions of atoms), did not look to the pre-Lucretian Epicureans for his poetic reception of atomism. At the same time, however, Virgil did not simply glean his attitude toward atomic metaphor directly from Lucretius, whose metaphorical usage favors positive representations of atoms as political actors.[39] Instead, as I demonstrate in the following sections of this chapter, Virgil's tendentious use of atomic imagery is best understood from the critical viewpoint of non-Epicurean sources, which provide a wealth of arguments and metaphors equating atomism with disorder, confusion, and violence. In order to better understand the broader intellectual context for Virgil's attitude toward atomism, I now consider the extant writings of the major philosophers in antiquity that opposed atomism, preferring teleological explanations of the cosmos.

1.2 ARISTOTLE

The earliest philosopher to explicitly refute atomism in his writings is Aristotle, who was active from the mid-4th century until his death in 322 BCE.[40] In keeping with his doxographical method of investigation, Aristotle incorporated numerous detailed criticisms of the early atomists into his treatises, which together form the basis of the subsequent tradition of anti-atomic argumentation in ancient philosophy. Because Aristotle wrote primarily in response to Democritus, and because Epicurus later modified minor aspects of the atomic theory in order to rebut Aristotle, certain of

[39] See the section on Lucretius at pp. 47–49.

[40] While Plato had strenuously opposed non-teleological materialism in various dialogues (e.g., *Philebus* 28c–31a and *Laws* X) he never addressed Democritus or atomism explicitly. On the general question of Plato's engagement with Democritus, see Ferwerda (1972). Particular attention has been paid to the possibility of Democritean engagement in the Receptacle passage of the *Timaeus* (48a–53c), for which see Gorey (2018); Nikolaou (1998); Wilamowitz-Moellendorff 1918/1948: 491–96, and Archer-Hind 1888: 188; *pace* Cornford 1937: 200–202 and Taylor 1928: 3. Concerning the dates of Aristotle's life and career, see Barnes 1995: 3–6. However, see also the cautionary note on the methodological pitfalls of attempting to provide exact (or even relative) dates for individual works (Barnes 1995: 18–22).

his technical objections to atomism do not apply to Epicurean physics, and therefore fall outside the scope of the present study.[41] However, Aristotle presented a number of arguments against atomism that were based upon the implausibility of order in nature arising because of chance, and his corresponding characterization of atomism as a kind of chaos deeply influenced later criticisms of Epicurean physics. Furthermore, Aristotle developed his negative portrayal of non-teleological materialism by characterizing atomism as a physics of "chance," and by equating the fortuitous nature of atomic motion with disorder. Although controversial metaphors are largely absent from Aristotle's arguments, his conflation of atomic mechanism, chance, and disorder deeply influenced later philosophers—most importantly, Cicero—who elaborated upon this tendentious characterization of atomism by means of increasingly provocative metaphors.

In key respects, Aristotle's characterization of atomism can be reduced to the objection that Democritean atomism amounts to an infinite regress of efficient (or material) causes that are unable to account for the hierarchical structure that is evident in the cosmos. In an interesting passage from *de Caelo* that compares atomic cosmology to the pre-cosmogonic Receptacle of Plato's *Timaeus* (48a–53c), Aristotle articulates this problem in terms of his own theory of motion and physics:[42]

> διὸ καὶ Λευκίππῳ καὶ Δημοκρίτῳ, τοῖς λέγουσιν ἀεὶ κινεῖσθαι τὰ πρῶτα σώματα ἐν τῷ κενῷ καὶ τῷ ἀπείρῳ, λεκτέον τίνα κίνησιν καὶ τίς ἡ κατὰ φύσιν αὐτῶν κίνησις. εἰ γὰρ ἄλλο ὑπ᾽ ἄλλου κινεῖται βίᾳ τῶν στοιχείων, ἀλλὰ καὶ κατὰ φύσιν ἀνάγκη τινὰ εἶναι κίνησιν ἑκάστου, παρ᾽ ἣν ἡ βίαιός ἐστιν· καὶ δεῖ τὴν πρώτην κινοῦσαν μὴ βίᾳ κινεῖν, ἀλλὰ κατὰ φύσιν· εἰς ἄπειρον γὰρ εἶσιν, εἰ μή τι ἔσται κατὰ φύσιν κινοῦν πρῶτον, ἀλλ᾽ ἀεὶ τὸ πρότερον βίᾳ κινούμενον κινήσει. τὸ αὐτὸ δὲ τοῦτο συμβαίνειν ἀναγκαῖον κἂν εἰ καθάπερ ἐν τῷ Τιμαίῳ γέγραπται, πρὶν γενέσθαι τὸν κόσμον ἐκινεῖτο τὰ στοιχεῖα ἀτάκτως. ἀνάγκη γὰρ ἢ βίαιον εἶναι τὴν κίνησιν ἢ κατὰ φύσιν. (*Cael*. 3.2 300b8–19)

[41] For detailed discussion of such objections, see Pyle 1997: 25–30, 49–64. One Aristotelian criticism, centered upon the impossibility of motion for bodies without parts, was ostensibly answered by Epicurus' adoption of theoretically—but not physically—divisible *minimae partes* within each atom.

[42] Translations of Book 3 of *de Caelo* are from Kouremenos (2013). Elsewhere Aristotle criticizes Plato for lack of clarity in this section of the *Timaeus*; see *Gen. Corr.* 2.1 329a13–24: οὐδένα ἔχει διορισμόν ("He maintains no clear distinction"). For discussion of that passage, see Baltes 1976: 10 (esp. n. 22), who notes that Aristotle and most other philosophers of the 4th century interpreted the Timaean pre-cosmogony as a literal, scientific description, as opposed to a mythological or allegorical explanation. Cf. Gregory 2003: 46 and Bollack 1967: 242 n. 2.

> Thus Leucippus and Democritus, who say that the first bodies are in constant motion in the infinite void, must explain what kind of motion is this motion of the first bodies, as well as which motion is their natural motion, for, if an element is forced to move by another, there must also be some natural motion of each of them, counter to which is its forced motion; also, the first motion necessarily causes forced motion by being not forced itself but natural, for there will result an infinite regress if no first mover which moves naturally exists but motion is always imposed by a prior mover whose motion is itself forced. The same difficulty must arise if, as is written in the *Timaeus*, the elements moved in a disorderly manner prior to the cosmogony, for this motion must have been either forced or natural.

Although Aristotle's comparison to Plato's *Timaeus* occurs within a difficult and highly technical discussion of types of motion that are unique to the Aristotelian conception of nature, it reveals an important assumption that permeates virtually all of his comments upon atomism. As many commentators have noticed, Aristotle bases his speculation about "natural" atomic motion in this passage upon the unspoken premise that individual atoms must move in a way that is intrinsically disordered.[43] This assumption is most evident in the lines immediately following the section of *de Caelo* previously quoted, where Aristotle rules out the hypothesis of a single natural motion for atoms (as opposed to a plurality of causes):[44]

> τοῖς δ᾽ ἄπειρα ἐν ἀπείρῳ τὰ κινούμενα ποιοῦσιν, εἰ μὲν ἓν τὸ κινοῦν, ἀνάγκη μίαν φέρεσθαι φοράν, ὥστ᾽ οὐκ ἀτάκτως κινηθήσεται, εἰ δ᾽ ἄπειρα τὰ [301a] κινοῦντα, καὶ τὰς φορὰς ἀναγκαῖον ἀπείρους εἶναι· εἰ γὰρ πεπερασμέναι, τάξις τις ἔσται· οὐ γὰρ τῷ μὴ φέρεσθαι εἰς τὸ αὐτὸ ἡ ἀταξία συμβαίνει· οὐδὲ γὰρ νῦν εἰς τὸ αὐτὸ φέρεται πάντα, ἀλλὰ τὰ συγγενῆ μόνον. (*Cael.* 3.2 300b31–301a4)
>
> As for those who posit infinitely many elements, which move in the infinite void, if there is a single cause of motion for the elements, they must move

[43] See Kouremenos 2013: 64: "The disorderliness of atomic motion is taken for granted, probably as an axiom of atomist physics. If a natural atomic motion exists, therefore, it will be disorderly. The hypothesis, however, that all atoms have the same internal cause of natural motion conflicts with the postulated disorderliness of atomic motion, and is thus rejected . . . It is clear from what comes next in 301a1–2 that only an infinity of natural atomic motions is compatible with the postulated disorderliness of atomic motion." See also Elders 1966: 286, who states, "The conclusion, not expressed, is that the view of Democritus cannot explain the formation of the world as it actually is."

[44] For the attribution of this opinion to the atomists, see Simpl. *in Cael.* 588.10.

> with a single motion, and thus will not move in a disorderly manner, but if there are infinitely many [301a1] causes of motion for the elements, infinitely many must also be the motions with which the elements move; for, if there are finitely many, they will exhibit some order, and disorderliness cannot result from motion to different places, since in the actual universe, too, not all quantities of elemental matter move towards the same place but only quantities of the same element.

Tellingly, Aristotle's argument relies upon the premise that any atomic hypothesis that yields order is necessarily self-contradictory. In a surprising *reductio ad ordinem*, Aristotle assumes that atomism is disorderly and that, therefore, if the assumption of a single natural motion yields a version of atomism that appears orderly, then that assumption must be incorrect. For Aristotle, the disorderliness of atomism is self-evident.

After considering various alternatives for the nature of atomic motion, Aristotle concludes this section of *de Caelo* with a harsh indictment of atomic physics as the very inverse of natural order. Exceeding earlier implied critiques of atomism as disorderly, Aristotle flatly equates atomic motion with absurdity by arguing that the doctrines of the atomists amount to an acceptance of disorder as the natural state of things:

> ἔτι τὸ ἀτάκτως οὐθέν ἐστιν ἕτερον ἢ τὸ παρὰ φύσιν· ἡ γὰρ τάξις ἡ οἰκεία τῶν αἰσθητῶν φύσις ἐστίν. ἀλλὰ μὴν καὶ τοῦτο ἄτοπον καὶ ἀδύνατον, τὸ ἄπειρον ἄτακτον ἔχειν κίνησιν· ἔστι γὰρ ἡ φύσις ἐκείνη τῶν πραγμάτων οἵαν ἔχει τὰ πλείω καὶ τὸν πλείω χρόνον· συμβαίνειν οὖν αὐτοῖς τοὐναντίον τὴν μὲν ἀταξιαν εἶναι κατὰ φύσιν, τὴν δὲ τάξιν καὶ τὸν κόσμον παρὰ φύσιν· καίτοι οὐδὲν ὡς ἔτυχε γίγνεται τῶν κατὰ φύσιν. (*Cael.* 3.2 301a4–11)
>
> What is disorderly, moreover, is nothing but counter-natural, for the nature of sensible things is their proper order. As it is, that the infinitely many elements move without order is another absurd impossibility: the nature of things is that which most of them have most of the time, so our opponents [the atomists] happen to regard, contrary to the facts, disorder as natural and orderly arrangement as counter-natural, although nothing natural results from chance.

Here Aristotle constructs a dichotomy that anticipates Virgil's allegorical deployment of atomism in the *Aeneid* as an enemy of order, by placing atomism

in direct conflict with a common-sense understanding of natural order. According to this view, atomism is not simply insufficient to account for a purposive and structured cosmos, but actually embodies its conceptual opposite: "our opponents happen to regard, contrary to the facts, disorder as natural and orderly arrangement as counter-natural, although nothing natural results from chance" (τὴν μὲν ἀταξιαν εἶναι κατὰ φύσιν, τὴν δὲ τάξιν καὶ τὸν κόσμον παρὰ φύσιν· καίτοι οὐδὲν ὡς ἔτυχε γίγνεται τῶν κατὰ φύσιν). Interestingly, this designation as a physics of disorder is unique to atomism in the works of Aristotle. Elevated above the status of being merely incorrect about the nature of the cosmos, as other formulations of materialism are, atomism is disorderly by definition.

As hinted at in the conclusion of the passage previously quoted, this polemical analysis of atomism relies in large part upon a particular understanding of "chance" (αὐτόματον) or "luck" (τύχη; cf. ἔτυχε at *Cael*. 3.2 301a11) as the underlying cause of atomic motion.[45] That Aristotle should characterize a materialist, deterministic system such as atomism as fundamentally fortuitous is, perhaps, surprising, given that Leucippus and Democritus ascribed all things in nature to necessity.[46] However, Aristotle carefully distinguishes between teleological and non-teleological causes. As a result, any event that possesses material and efficient (non-teleological) causes, but which lacks a final (teleological) cause, is classified as fortuitous.[47] In applying this logic to the motion of atoms, Aristotle recasts the atomists' cosmology in terms of chance, rather than necessity:[48]

> εἰσὶ δέ τινες οἳ καὶ τοὐρανοῦ τοῦδε καὶ τῶν κόσμων πάντων αἰτιῶνται τὸ αὐτόματον· ἀπὸ ταὐτομάτον γὰρ γενέσθαι τὴν δίνην καὶ τὴν κίνησιν τὴν διακρίνασαν καὶ καταστήσασαν εἰς ταύτην τὴν τάξιν τὸ πᾶν. (*Ph*. 2.4 196a24–28)
>
> There are some who attribute the cause of the universe and all the worlds to accident; for they say that the cosmic whirl and the motion that separates and joins the universe into its arrangement arises spontaneously.

[45] For the most detailed explanation of luck and chance in the Aristotelian corpus, see *Ph*. 2.4 195b31–2.6 198a13.

[46] See Leucippus fr. 1 (Taylor 1999: 2).

[47] For Aristotle's own definitions of material, formal, efficient, and final causes, see *Ph*. 2.3 194b16–195b30.

[48] The translation is mine. For the identification of "some" (τινες) people here as Democriteans, see Ross 1936: 515, who cites Simplicius at the place.

This redefinition of atomic necessity as accident, or chance, marks an important conceptual and rhetorical shift in the characterization of atomism.[49] While Democritus' necessity (ἀνάγκη) evokes a stable, implacable cosmological principle, a foundational order stronger even than the gods, Aristotle's emphasis upon chance imbues atomic physics with an air of capriciousness and instability that is absent from its original formulation.[50] Furthermore, as his proposed etymology for αὐτόματον (derived from μάτην, "in vain") demonstrates, Aristotle's concept of chance is equally suggestive of futility—not just the absence of purpose, but frustrated purpose.[51]

At the heart of this interpretation of atomism lies profound skepticism about the ability of chance alone to generate order in any meaningful way. According to the Aristotelian conception of nature (φύσις), all events that happen consistently or predictably are natural, and since this nature is inherently teleological, such occurrences cannot be due to chance. Therefore, when Aristotle explains atomism as a physics of chance, he is effectively arguing that atomic cosmology cannot account for large-scale regularity or purpose in the cosmos.[52] Elsewhere, Aristotle ridicules the notion that the regular motion of heavenly bodies could be due to chance, on the same grounds that the whole notion of regularity is antithetical to chance.[53] Even at the local level, Aristotle denies that regular, purposive structures can occur fortuitously, using one of Democritus' own examples, the formation of teeth, to illustrate his point.[54]

The final example of this skepticism about the possibility of order in an atomic universe, which most clearly shows Aristotle's systematic conflation of chance with disorder in discussions of cosmology, occurs in a passage of

[49] On the compatibility of attributing the atomic δίνη ("cosmic whirl") to "chance" while still subordinating all physical motion to "necessity," see Dudley 2012: 144–55, as well as Bailey 1928: 139–43.

[50] Archaic Greek poetry attests the early characterization of Ἀνάγκη ("Necessity") as being stronger even than the gods. See Simonides (cited at Pl. *Prt*. 345d): ἀνάγκῃ δ' οὐδὲ θεοὶ μάχονται ("Not even the gods fight against necessity"). See also Hes. *Theog*. 517–18: Ἄτλας δ' οὐρανὸν εὐρὺν ἔχει κρατερῇς ὑπ' ἀνάγκης/ πείρασιν ἐν γαίης ("And Atlas is compelled by powerful necessity to bear the wide sky at the ends of the earth").

[51] See Arist. *Ph*. 2.6 197b22–32.

[52] See *Cael*. 1.12 283a30–283b1. Aristotle defines chance as an exception to that which is regular or eternal, and therefore unable to account for the eternal and imperishable world. See also *Cael*. 2.8 289b25–27: οὐκ ἔστιν ἐν τοῖς φύσει τὸ ὡς ἔτυχεν, οὐδὲ τὸ πανταχοῦ καὶ πᾶσιν ὑπάρχον τὸ ἀπὸ τύχης ("There is no chance in events that occur by nature, nor can what happens everywhere and to all things occur be caused by chance").

[53] See *Cael*. 2.8 289b23–25, where Aristotle describes any attempt to attribute the orderly rotation of heavenly bodies to chance as a "mere fiction" (πλάσματι ἔοικεν).

[54] See Arist. *Ph*. 2.8 198b 34–36. Cf. Aristotle's summary of the Democritean theory at *Gen. An*. 788b10–789b8.

de Partibus Animalium. Here Aristotle criticizes the atomists for attributing the growth of animals to nature, while leaving the structure of the heavens to chance:[55]

> Οἱ δὲ τῶν μὲν ζῴων ἕκαστον φύσει φασὶν εἶναι καὶ γενέσθαι, τὸν δ´ οὐρανὸν ἀπὸ τύχης καὶ τοῦ αὐτομάτου τοιοῦτον συστῆναι, ἐν ᾧ *ἀπὸ τύχης* καὶ *ἀταξίας* οὐδ´ ὁτιοῦν φαίνεται. (*Part. An.* 1.1 641b20–23)
>
> Some [atomists] say that although each animal is and comes to be by nature, the heaven has been formed in the way it is from luck and accident. Yet nothing whatsoever in the heaven appears *the result of luck* and *disorder*.

Although the substance of this criticism is no different from that of many of the other passages in which Aristotle rejects the possibility of order arising by chance, it is noteworthy for the direct equivalence it establishes between luck (τύχη), accident (αὐτόματον), and disorder (ἀταξία), which appear as interchangeable synonyms for the underlying cause of a non-teleological cosmos. As we have seen in the examples previously cited, this conflation of atomic motion with chance is a cornerstone of Aristotle's characterization of atomism as a physics of disorder, and would exert a powerful influence upon the imagination of subsequent philosophers who opposed atomism. In particular, the opinion that atomism represents the very inverse of cosmic order evidently influenced Cicero, who further developed that characterization by means of colorful and tendentious metaphors that depicted atoms as disordered, lawless, and violent.

1.3 STOICS AND SKEPTICS: THE CICERONIAN EVIDENCE

The next major antagonist in the reception of atomism is Cicero, whose corpus of philosophical dialogues, composed in a flurry of literary activity between 45 and 44 BCE, provides a wealth of insights into Hellenistic and Roman attitudes toward Epicurean philosophy in the decades before the

[55] Translation taken from Sedley 2007: 194–95. Although this passage is assumed to refer to Democritus by Ross 1936: 515; Charlton 1970: 105; and Balme 1972: 87, Lennox disagrees, on the grounds that Aristotle doesn't attribute "spontaneity" as a cause to Democritus elsewhere (Lennox 2001: 136). But if we are to believe Simplicius, Aristotle does just that at *Ph.* 2.4 196a24–28. In light of Aristotle's consistent conflation of atomism with chance and disorder elsewhere, it makes sense to take this passage, with Ross and others, as referring to Democritus. Cf. *Ph.* 195b36–196b5.

Aeneid.[56] Regrettably, this jump from the 4th century to the first passes over a crucial period of Greek philosophy, in which the major philosophical schools engaged in fierce debates with the atomists and their Epicurean successors. However, this leap is necessitated by the extremely fragmentary and lacunose state of textual evidence for that period.[57] While we do possess many quotations and paraphrases of Hellenistic philosophers preserved in later writers, such testimonia, as evidenced by the organization of modern editions of the fragments, almost exclusively focus on explaining the positive doctrines of a particular philosopher or school, providing scant detailed evidence of how they argued *against* the doctrines of their Epicurean opponents.[58]

In light of this dearth of primary texts, Cicero represents our best evidence for the anti-atomist attitudes of Hellenistic philosophers, particularly Stoics and Academic Skeptics, whose works he made liberal use of in composing his own texts.[59] While it is likely that some of the rhetorical flourishes attributed to Stoic or Academic characters in the dialogues are original to Cicero himself (therefore making it difficult to parse whether a particular attitude belongs to Cicero or to his source texts), his dialogues nonetheless provide an excellent survey of the various arguments against atomism in circulation during Virgil's youth and early adulthood. Furthermore, the tremendous literary influence of Cicero's dialogues after his death, evident in Virgil's engagement with *de Republica* in *Aeneid* 6, makes it highly likely that Cicero's

[56] For Cicero's own (partial) catalogue and description of these works, see *Div*. 2.1.1–4, with discussion at Schofield 2013: 75ff.

[57] For the scantiness of evidence prior to 80 BCE, as well as a cautionary note about the challenges presented by our reliance on Cicero for understanding Roman philosophy in the late Republic, see Zetzel 2015: 50–51.

[58] The major exception, of course, is Philodemus, whose papyri record certain arguments of his Stoic opponents in detail. More representative, however, is the *Stoicorum Veterum Fragmenta* (Arnim 1921–24, 3 vols.), which organizes the extant fragments of each Stoic philosopher by subject matter. While the section titled *Physica* provides details about the positive doctrines of the Stoics, they offer little insight into how they criticized Epicurean atomism. It is likely that imperial authors such as Plutarch, as well as later Christian polemicists like Augustine and Lactantius, have preserved certain Hellenistic arguments against atomism in their own critiques of Epicurean physics, but it is difficult to determine which arguments are Hellenistic and which are contemporary. If they are contemporary to the time of the author, then they will not help us to understand the intellectual climate around atomism that Virgil experienced when writing the *Aeneid*.

[59] See *Fin*. 1.3.7, where Cicero discusses his use of Greek sources in composing his philosophical dialogues. Cf. Baraz 2012: 97–127, who discusses Cicero's work as a "translator" of Greek philosophy, as well as Dyck 2003: 7–11, whose discussion of sources for the first book of *de Natura Deorum* reveals engagement with a wide variety of texts. This variety conforms to Cicero's own stated method of "Academic" discussion, in which one puts forth the best arguments for all sides and then decides for oneself (cf. *Div.* 2.150; *Tusc*. 5.29.83). See Gorman 2005: 11–15.

tendentious portrayal of atomism did much to shape the hostile reception of Epicurean physics in the years during which Virgil composed his epic.[60]

Before we get into specific texts, it will be helpful to make a few general observations about Cicero's approach to Epicurean physics. First, few of the substantive arguments against atomic physics in Cicero's dialogues are original to Cicero himself. In fact, all of the arguments presented by his Stoic and Skeptic interlocutors are anticipated in some form in the works of Aristotle, or in doxographical accounts of earlier Stoic doctrines. Cicero's main contribution to anti-atomist polemic is limited to the manner in which he metaphorically characterizes atoms; while the substance of his critiques is identical to Aristotle's, centering mostly on chance and disorder, his use of imaginative imagery associates that fortuitousness with human violence and political disorder.

Second, Cicero treats Epicurean physics as essentially interchangeable with Democritean atomism.[61] The only substantive difference mentioned in the dialogues is the swerve, which Cicero ridicules as a detrimental addition to the atomic theory. Despite the fact that Epicurus made technical changes to the doctrine of atomism in an attempt to answer Aristotelian criticisms, Cicero largely ignores these changes, indicating broad continuity in anti-atomist critiques from Aristotle to the 1st century BCE.[62] Similarly, although there is evidence that Cicero was familiar with some, if not all, of Lucretius' *de Rerum Natura*, he does not name the Roman Epicurean as a source in any of his philosophical works, and does not generally distinguish between earlier and later forms of atomism.[63]

In the sections that follow, I examine the Ciceronian evidence, first for Stoic attitudes toward atomism, and then for Skeptical ones, with which I include all characterizations of atomism voiced by Cicero (the interlocutor). Because it is not the purpose of this chapter to identify precisely the origin of all strains of anti-atomist thought, but rather to trace the pedigree and development of such arguments so as to see how they reasonably might have

[60] For Cicero's formative influence on Latin philosophical vocabulary, see Laurand 1928: 78–80 (vol. 1).

[61] See especially *Ac.* 2.6 and *N.D.* 1.26.73. Pease 1955/1968: 363 also cites *N.D.* 1.69, 1.73, 1.93, 1.107, 1.120; *Fin.* 4.13.

[62] Concerning the possibility of an earlier loss and "rediscovery" of the Aristotelian corpus during the 60s BCE, see Hatzimichali 2013: 11ff.

[63] Cicero famously mentions *Lucreti Poemata* in a letter to his brother Quintus from 54 BCE (Cic. *Q. fr.* 2.10.3). For Cicero's reception of Lucretius, particularly in *de Republica* (54 BCE), see Gatzemeier 2013: 31–42. Gatzemeier identifies Lucretian verbiage in the *Somnium Scipionis* as the earliest evidence of Lucretius's reception in Latin prose.

influenced Virgil's reception of Epicurean physics in the *Aeneid*, I will leave aside the thorny problem of whether or not one can attribute arguments to Cicero personally, or to his source texts. For the purposes of the argument at hand, it will suffice to take Cicero at his word as an Academic Skeptic, and to see his rhetoric as belonging more generally to a broad tradition of anti-atomist arguments shared by a variety of philosophical schools in the 1st century, and consequently accessible to Virgil during his education and adulthood.

1.3.1 Stoic Critiques of Atomism in Cicero

As the first philosophical school to systematically embrace and elaborate the Argument from Design—an argument for the existence of an intelligent creator god based upon the appearance of intentional design in the natural world—the Stoics were diametrically opposed to the non-teleological cosmology espoused by the Epicurean atomists.[64] The longest version of this argument that is specifically directed against atomism in Cicero's dialogues occurs in *de Natura Deorum*. In a colorful passage that echoes Aristotelian arguments about the incompatibility of chance and regular order in nature, Balbus, the dialogue's Stoic interlocutor, compares the likelihood of fortuitous atomic world-formation to that of a jumble of letters poured out onto the floor miraculously arranging themselves into Ennius' *Annales*:[65]

> Hic ego non mirer esse quemquam, qui sibi persuadeat corpora quaedam solida atque individua vi et gravitate ferri mundumque effici ornatissimum et pulcherrimum ex eorum corporum *concursione fortuita*? hoc qui existimat fieri potuisse, non intellego, cur non idem putet, si innumberabiles unius et viginti formae litterarum vel aureae vel qualeslibet aliquo coiciantur, posse ex is in terram excussis *Annales* Enni, ut deinceps legi possint, effici; quod nescio an ne in uno quidem versu possit tantum valere *fortuna*. (*N.D.* 2.37.93)

[64] Sedley 2007: 205–38. Although the basic idea is anticipated by Xenophon's Socrates (*Mem.* 1.4), and by the teleological arguments of Aristotle, the Stoics were the first to champion the Argument from Design with an array of formal arguments (2007: 78–86).

[65] For the special role of the Stoics in developing and articulating this critique, see Sedley 2007: 205–38. For the link with Aristotle, cf. Balbus' citation at *N.D.* 2.37.95.

> Here should I not marvel that there is anyone who may persuade himself that certain solid and indivisible atoms are moved by force and weight and that a most splendid and beautiful world is formed by the *fortuitous collision* of those atoms? And as for whoever reckons that it was possible for this to have occurred, I do not understand why they do not also think the following: that if a countless number of copies of the twenty-one letters (made of gold or whatever else) were gathered together someplace, when they were shaken out onto the ground it would be possible for one to read there the *Annales* of Ennius. I do not know whether *fortune* could have the power to do that with even one verse.

Using the analogy of authors and their literary creations, Balbus argues that the apparent complexity and design of the world are evidence that it is the product of an intelligent creator, and not the product of chance. As we have already seen with Aristotle, this characterization of atomism as a physics of chance and, by extension, disorder, is inherently tendentious, since it contradicts the emphasis that the atomists themselves placed upon the fixed laws (ἀνάγκη) and regularity (*ratio*) of atomic cosmology.[66] Moreover, even the attribution of random chance to the workings of *fortuna* ("fortune") in this passage is not without ideological significance. As Jacqueline Champeaux and Maria Elvira Consoli have documented in separate studies on *fortuna* in the republican period, attitudes toward "fortune" and random chance vary widely in Roman literature, both positive and negative.[67] Cicero, however, often portrays *fortuna* in an unflattering light—particularly in his philosophical works—and the passage previously quoted echoes critiques of *fortuna* from a variety of other texts in which he rejects random chance as being fundamentally incompatible with rational organization and planning.[68]

In a similar vein, when Balbus returns to this criticism of atomic cosmology in the following paragraph, he goes beyond strictly philosophical arguments about chance and regularity. Applying the moralizing language

[66] Cf. the positive Lucretian metaphor of *foedera naturai* ("treaties of nature," Lucr. 1.586; 2.302) and his use of *ratio* to describe the order and limits of atomic reality (1.75–77). For more detailed analysis of the *foedus* metaphor in Lucretius, see the chapter titled "Atomizing Ritual Alliance" in Gladhill 2016: 69–96.

[67] Champeaux 1987: 116–18 and Consoli 2016: 85.

[68] For Cicero's views on the undesirable *varietas* ("fickleness") of fortune, see Champeaux 1987: 293. Cf. *Ver*. 5.50.132; *N.D.* 2.16.43; *Div*. 2.53.109; *Off*. 1.26.90; *de Orat*. 3.3.9; *Fin*. 2.3.10; *Fin*. 4.7.17; and *Fam*. 5.12.4. Early evidence of this negative attitude toward *fortuna* can be found in the fragment of Pacuvius cited at *Rhet. Her.* 2.23.36: *fortunam insanam esse et caecam et brutam perhibent philosophi* ("There are philosophers who say that fortune is insane, blind, and irrational").

of ethics and politics to impersonal atomic interactions, Balbus characterizes their collisions as not just random, but heedless or reckless: *isti autem quemadmodum adseverant ex corpusculis . . . concurrentibus* temere *atque casu mundum esse perfectum* ("Moreover, [the atomists] insist that the world has been fashioned from atoms rushing together *recklessly* and by chance" *N.D.* 2.37.94). While *fortuitus* ("fortuitous") and *casu* ("by chance") simply denote chance or accident, *temere* typically connotes rashness and thoughtlessness, imputing a sort of mob mentality to the heedless flight of atoms.[69] In fact, in a similar passage in *de Divinatione* that conflates chance, fortune, and the irrational randomness of *temeritas*, Cicero tellingly glosses random chance as a "blind" force: *Quo modo ergo id, quod* temere *fit caeco casu et volubilitate fortunae, praesentiri et praedici potest?* ("Therefore, in what manner can these things be predicted or foreseen, which occur *randomly* due to blind chance and to the volatility of fortune?" *Div*. 2.15). In the abstract, of course, *temere* could simply function as a synonym for "random," but his tendency across a great variety of works is to characterize this randomness as illogical or threatening.[70]

Last, Cicero's characterization of atomic motion as rash (*temere*) also taps into a rich vein of anti-populist political rhetoric. In his study of political language in the late Republic, Alfons Weische argues that *temeritas* (along with *temere* and *temerarius*) in post-Sullan discourse is closely associated with the rashness of mobs and demagogues at Rome, behavior that Cicero in his political speeches repeatedly contrasts with the prudent judgment of the senatorial aristocracy: *non multitudinis temeritate, sed optimatium consilio* ("not by the rashness of the crowd, but by the counsel of the *optimates,*" Cic. *Flac*. 58).[71] This politically charged language has the effect of comparing chaotic

[69] *OLD* s.v. *temere* (esp. 1–3); cf. *temeritas*. While *temere* can simply mean "by chance" (cf. the Greek synonyms ἀπὸ τοὐτομάτου and εἰκῇ; Weische 1966: 31), unlike *casu*, it lies on a spectrum of connotations that include rashness, heedlessness, and brashness. See, e.g., Cic. *Off*. 1.29.103, where the phrase *temere ac fortuito* ("thoughtlessly and by chance") is set in apposition to *inconsiderate neglegenterque* ("rashly and carelessly"), and in opposition to *animadversio* and *diligentia* ("watchfulness" and "attentiveness").

[70] In a recent study on the use of *temer-* words in the Ciceronian corpus, Carlos Lévy notes that, of the over 200 occurrences of such words, virtually all appear to be used in a negative fashion, often with unsavory ethical and political connotations (2018: 292–94).

[71] See Weische 1966: 28–33, who cites over a dozen Ciceronian passages, as well as examples from the *Rhetorica ad Herennium* and from Caesar: *Wie die angeführten Stellen zeigen, wird mit "temeritas" besonders die Vorstellung der Unüberlegtheit und Unbegründetheit von Entschlüssen und Handlungen verbunden* ("As the cited passages show, *temeritas* is associated in particular with the notion of carelessness and of unfounded decisions and actions," 30). Cf. Consoli 2016: 38–39. This attitude is best illustrated by a comment by Cicero in the *pro Marcello*: *numquam enim temeritas cum sapientia commiscetur nec ad consilium casus admittitur* ("In fact, *temeritas* is never combined with wisdom, nor is chance allowed a part in careful deliberation," *Marc*. 7).

atomic interactions to mob violence and to the very real political friction of the late Republican period, a theme that Cicero expands upon to great effect elsewhere in his dialogues, and which I discuss in greater detail later.

When Balbus repeats the same phrase one final time, he again associates the temerity of atoms with the haphazardness of their motion: *ex corporibus huc et illuc casu et temere cursantibus* ("from atoms rushing here and there at random and recklessly" *N.D.* 2.44.115). This negative characterization, meant to strike a contrast to the "real" world of self-evident purpose and structure, is a natural outgrowth of the Stoic belief in intelligent design and the associated metaphor of God as craftsman or ruler over the natural world: if there is no divine planner, then the natural world must fall victim not just to chance in the Aristotelian sense, but to a more personalized and political brand of rashness and lack of thought. By advancing this characterization of atomism, Balbus implies a moral criticism of atoms—that by moving without any overarching divine guidance, they act the way that foolish or bad people do in large crowds.

1.3.2 Academic Critiques of Atomism in Cicero

Like the Stoics, the representatives of Academic Skepticism in Cicero's dialogues also criticize the fortuitous basis of atomic cosmology. Cicero's own character echoes Balbus' description of atomic impacts as "random collisions" (*concursione fortuita*, *N.D.* 2.37.93), once in the *Academica* (1.2.6), and twice in the *Tusculan Disputations* (1.18.42, 1.11.22), and it is repeated again by the Skeptic C. Cotta in *N.D.* 1.24.66 (*concursu quodam fortuito*). Later in the same passage, Cotta echoes Balbus' skepticism about a seemingly purposive world (*opus*) forming from random collisions: *Sed ubi est veritas? . . . in individuis corpusculis tam praeclara opera nulla moderante natura, nulla ratione fingentibus?* ("But where is the truth? Is it in individual atoms forming such splendid works, without any nature or reason moderating?" *N.D.* 1.29.67). Without embracing the Stoic vision of an intelligent creator God, Cicero's Skeptics nonetheless mirror Stoic doubts about the atomic account of cosmic order and structure.

The main way that Cicero elaborates upon this criticism of atomic fortuitousness is through the use of metaphors that compare the behavior of atoms to people. In one such metaphor, directed at the illogicality of the Epicurean swerve, he imagines atoms "going astray and swerving [or "deviating"] from

their path" (*atomis errantibus et de via declinantibus*, *Fat*. 46), as if lost in the course of their otherwise predictable downward motion.[72] Aside from the obvious metaphorical criticism that the atoms are somehow hapless or lost, the phrase *de via declinantibus* likely contains a subtle moral rebuke as well. Although both Cicero and Lucretius use the verb *declinare* as a technical term for the atomic swerve, the phrase *de via declinare* is itself a distinct idiom, independent of ancient physics, which can indicate a straying from ethical or moral norms.[73] Earlier in *de Fato*, Cicero uses a similar expression, lambasting Epicurus for "leading the atoms astray from their path" (*Epicurus . . . eas [atomos] de via deducat*, *Fat*. 18), a turn of phrase that cleverly associates the technical language of atomic *declinatio* with an overall error in judgment introduced by Epicurus, who is pictured here as turning his atoms away from both the literally straight path of Democritean atoms and from the metaphorical path of common sense. By employing the phrase again in conjunction with *atomis errantibus* ("wandering atoms") at *Fat*. 46, Cicero almost certainly means to evoke both the literal and ethical sense of the idiom in a disapproving fashion.

While such quips about atomic wandering and fortuitous collisions seem fairly benign, they are often paired with more explicitly negative characterizations of atomism as disordered or violent in a political or military sense, and it is in this regard that Cicero's dialogues make their most substantive contribution to the debate surrounding atomism. Taken together, they portray atomism as an anti-cosmology identified with the warfare and political chaos of the late Republic.

One metaphorical comparison that Cicero employs in this fashion, albeit to a limited extent, is between atomic collisions and combat. Reinhardt notes in a passage of the *de Natura Deorum* that Cotta, the Skeptical interlocutor,

[72] For other criticisms of the illogicality of swerve, cf. Cic. *N.D.* 1.25.69–70; *Fat*. 22–23, 46–48; and *Fin*. 1.6.19–20.

[73] See *OLD* s.v. *via* (7c), "a way or path of life," along with *declino* (2b), "to deviate from a norm of behaviour." For the moral force of this idiom, which can be felt in the English word "deviant," see Reinhardt 2005: 175, as well as Seyffert 1876: 398: Declinare, decedere de via *sind gewöhnliche Tropen für* honestatem, virtutem, officium deserere. *So* pro Cael. *16.38* Huic tristi seni responderet Caelius, se nulla cupiditate inductum de via decessisse. (" 'Swerve' and 'stray from the path' are regular expressions for 'abandoning one's honesty, virtue, or duty.' Thus *pro Cael.* 16.38 says 'Caelius responded to this old man that he had not been led to stray from the path by any lust' "). Cf. Cic. *Amic*. 17.61 and *Rep*. 1.67. Cicero uses the verb *declinare* in a similar sense with *de statu* ("to deviate from one's position") at *Clu*. 106 and *Prov.* 41, and with *ab religione* ("to deviate from religious propriety") at *Ver*. 2.3.2.

likens the continual bombardment of atoms upon the bodies of the gods to soldiers making an attack:[74]

> Nec tamen video, quo modo non vereatur iste deus beatus, ne intereat, cum sine ulla intermissione pulsetur agiteturque atomorum *incursione* sempiterna, cumque ex ipso imagines semper afluant (*N.D.* 1.41.114).
>
> Nor do I see how that blessed god could not be afraid of death, since he is battered without ceasing and assailed by an eternal *assault* of atoms, while images are constantly flowing away from him.

While the verbs *pulsare* ("batter") and *agitare* ("assail") may convey a general sense of force or violence, the word *incursio* ("assault") is typically restricted to military contexts and here is almost certainly meant to evoke the idea of a an assault by soldiers or a hostile inroad.[75] Cotta does not elaborate further upon the metaphor, but its position within his overall argument against Epicurean theology is significant. Immediately after criticizing the *atomorum incursio*, Cotta concludes that Epicureanism threatens the very foundations of religion: *sustulerit omnem funditus religionem nec manibus ut Xerxes sed rationibus deorum immortalium templa et aras everterit* ("[Epicurus] abolished all of religion to its very foundations; and not with his hands, like Xerxes, but by his arguments he overturned the temples and the altars of the immortal gods," *N.D.* 1.41.115). The implications of the "assault" of the atoms upon the gods are, therefore, potentially quite disturbing: like a Gigantomachy in miniature, the atoms seek to overthrow the gods who are the traditional guarantors of cosmic order.

The principal metaphor, however, that Cicero uses to associate atoms with disorder is political, comparing atoms to the urban mob at Rome. As we saw earlier, Balbus' characterization of atoms as rash (*temere*) already evokes late-Republican political discourse, and Cicero strengthens this association when he separately refers to the "crowd of atoms" (*atomorum turba*; *Tusc.* 1.11.22) and their "turbulent collision" (*turbulenta concursio*; *Fin.* 1.6.20). As Joseph

[74] Reinhardt 2005: 172.

[75] *OLD* s.v. 1, "esp. mil." cf. *TLL* s.v. 1a. Cicero uses one other time in reference to atomic *imagines*, although the military valence of the word is less pronounced: *ita qua [Epicurus] mutat, ea corrumpit, quae sequitur sunt tota Democriti, atomi, inane, imagines, quae εἴδωλα nominant, quorum* incursione *non solum videamus, sed etiam cogitemus* ("Thus wherever [Epicurus] changes atomism, he corrupts it, and wherever he follows it, he simply copies from Democritus the atoms, void, and 'images,' which they call 'εἴδωλα,' whose *impacts* cause us not only to see, but to think as well," *Fin.* 1.6.21).

Hellegouarc'h has argued, citing widely from late-Republican and Augustan literature, both *turba* and *turbulentus* possess strong connotations of mob violence and populist political disorder—a persistent feature of public politics in the final decades of the Republic—and it follows that this turmoil would have been keenly felt during the period between 45 and 44 BCE when Cicero composed the majority of his philosophical works.[76] Even for Lucretius, a bona fide atomist writing in the 50s, the metaphor of the atomic *turba* applies specifically to *disordered* groups of atoms, which he contrasts with the positive political metaphor of a *coetus* ("gathering") or *concilium* ("assembly") when those atoms successfully combine to form a larger, ordered whole.[77] Cicero's *turba atomorum*, therefore, is not just a crowd by virtue of its numbers, but by its lack of effective guidance and its supposed propensity to disorder and violent collision.

In many of the political metaphors employed by Cicero, Epicurean atoms are not only anarchic in the literal sense of lacking an intelligent leader, but also behaviorally anarchic in the sense of being chaotic and self-destructive, in the way that a human community might succumb to violence in the absence of stable governance.[78] A telling example occurs in *de Natura Deorum*, when Cotta criticizes the Epicureans with an intriguing metaphor, castigating them for reducing all explanations of phenomena to the "tyranny and licentiousness of atoms" (*abuteris ad omnia atomorum regno et licentia,* Cic. *N.D.* 1.23.65). In a strictly philosophical sense, this dual attribution of tyranny and licentiousness, which in Roman political parlance refers to unrestrained liberty and lack of discipline, complements Cotta's arguments in two ways. First, the metaphor of political tyranny (*regnum*) ridicules the absolute authority given to

[76] See Hellegouarc'h 1963: 515: Turba *qui, au sens propre, signifie 'le désordre,' exprime aussi dans un sens plus concret la notion d'une foule désordonnée et en révolte; il s'applique aux Catiliniens chez Cicéron, à la* factio forensis *d'Ap. Claudius chez Tite-Live* ("*Turba*, which in its literal sense means 'disorder,' also expresses in a more concrete way the notion of a disorderly and revolting mob; it applies to the Catilinarians in Cicero, and to Appius Claudius' *factio forensis* in Titus Livy"). For similar comments on *turbulentus*, see ibid.: 531–32. The association of *turba* with *turbulentus* was likely a familiar one, judging by a witticism of Varro's, recorded by Gellius (*NA* 13.11.3), concerning the appropriate number of guests for a dinner: *nam multos, inquit, esse non convenit,* quod turba plerumque est turbulenta *et Romae quidem stat, sedet Athenis, nusquam autem cubat* ("He says that there ought not be too many guests, *since a crowd is often rowdy*, and while a crowd stands in Rome and sits in Athens, there is no city where it reclines"). From a philosophical perspective, Cicero's *turba* may also have been intended to evoke *turbo*, a Latin translation of Democritus' δίνη, and Gustafsson's proposed (albeit unlikely) emendation for *turba*. See Gustafsson 1882: 169.

[77] See Cabisius 1984–85: 111, 114–15, who documents the dichotomy in Lucretius between *vulgus/turba* and *coetus/concilium* to describe disorderly and orderly groups of atoms. Cf. Lucr. 2.549–51, 919–22.

[78] See Reinhardt 2005: 171–75. As Reinhardt has carefully documented, political metaphors equating atomism with anarchy form a major component of Cicero's presentation of Epicurean physics.

atoms in Epicurus' reductionist explanations of natural phenomena, while the atoms' licentiousness (*licentia*), here a form of lawlessness, reminds the reader of the uncaused swerve that reduces that reductionism to an absurdity.

More importantly, however, Cotta's metaphor contains a strong moral dimension that ties the behavior of atoms to odious (from the perspective of Cicero) developments in contemporary politics. In a passage of Cicero's *de Republica*, written in the late 50s, Scipio Aemilianus attributes the rise of tyranny in a republic to the growth of unbridled *licentia* among the people:[79]

> ex hac infinita, inquit, licentia haec summa cogitur, ut ita fastidiosae mollesque mentes evadant civium, ut si minima vis adhibeatur imperii, irascantur et perferre nequeant; ex quo leges quoque incipiunt neclegere, ut plane sine ullo domino sint . . . ex hac nimia licentia, quam illi solam libertatem putant, ait ille, ut ex stirpe quadam existere et quasi nasci tyrannum. (*Rep*. 1.67–68)

> This infinite licentiousness brings about a final result: the minds of the citizens become so disdainful and soft, that if the slightest force of governmental power is applied, they become angry and are unable to tolerate it; and from this point they begin to neglect the laws as well, since they are so clearly without any master . . . It is out of this excessive licentiousness—which they think is only liberty—that the tyrant arises, as if from some root or stalk; from this he is, in a fashion, begotten.

As we can see, the various attributions of *turba* ("crowd"), *licentia* ("licentiousness"), and *regnum* ("tyranny") to atomism in Cicero's later philosophical works evoke an established model of republican decline, with obvious parallels in contemporary Rome. In further confirmation of this point, as Hellegouarc'h notes, *licentia* and *regnum*, both terms of political rebuke in the late Republic, are applied mostly to descriptions of populist politicians who owed much of their power to influence with the urban crowd at Rome.[80]

[79] See Weische 1966: 37–38 and Hellegouarc'h 1963: 558–59, 560–61, both of whom offer insightful commentary upon the perceived connection between popular *licentia* and personal *regnum* in the late Republic.

[80] See Weische 1966: 38: Licentia *und* libido *konnte allen denen vorgeworfen werden, die nach Ansicht der Optimaten die bestehende Ordnung der römischen Republik gefährdeten* ("[The terms] *licentia* and *libido* could be attributed to all who, in the eyes of the Optimates, threatened the existing order of the Roman Republic"). See also Hellegouarc'h 1963: 560: *c'est d'ordinaire aux* populares *que le désir de* regnum *est imputé* ("The desire for *regnum* is ordinarily imputed to the *populares*").

When Cicero applies these political catchwords and metaphors to atomism, it has the effect of repeatedly comparing Epicurean physics to exactly the sort of mob violence, demagoguery, and eventual tyranny that ended republican government at Rome and forced Cicero himself out of politics and into philosophical writing.[81]

Having surveyed Cicero's use of metaphor in characterizing Epicurean atomism, I now offer some conclusions. First, that across many dialogues, Cicero presents a consistent image of atoms as capricious, anarchic, and threatening to the natural order—in other words, as fundamentally *dis*orderly. It is difficult to know exactly to whom these characterizations can be attributed, because Stoic and Skeptic interlocutors repeat many of the same criticisms, and it is not often clear when Cicero is speaking *as a skeptic* or not. However, even without our knowing the exact origin of every detail, Cicero's dialogues are invaluable as a survey of non-Epicurean perceptions of atomism in the mid-1st century BCE, providing strong evidence that characterizations of atomism as disorderly were widespread in the generation before Virgil.

However, it is the political dimension of Cicero's metaphors that likely had the greatest impact upon Virgil's reception of atomism in the *Aeneid*. Given the immediate and far-reaching influence of Cicero's dialogues upon the subsequent development of Latin philosophy, and given Virgil's detailed engagement with *de Republica* in *Aeneid* 6, it is extremely likely that the poet was familiar with Cicero's other philosophical works.[82] And in those works, Virgil would have found a thoroughly contentious presentation of Epicurean philosophy that associates atomism with the same forces of political disorder that tore apart the Roman Republic. In the *Aeneid*, Virgil reverses the direction of the comparison, but to similar effect; instead of describing atoms in negative political terms, as Cicero does, Virgil describes moments from the mythology and history of the Romans in atomic terminology, particularly in situations and contexts that present some obstruction to the establishment of Roman *imperium* and cosmic order.

[81] For the direct link between Cicero's exclusion from politics and his decision to write philosophical works, see Cic. *Fam.* 9.2.

[82] More importantly, Virgil must have been acquainted with the negative characterization of atomism, whether directly from Cicero' dialogues or from the Hellenistic Greek texts that he would have encountered in his studies among the Epicureans on the Bay of Naples. See the introduction of this chapter.

1.4 LUCRETIAN ATOMISM

Although the discussion thus far has focused on the arguments and metaphors of anti-atomist philosophers, any account of figurative language in post-Democritean descriptions of atomism would be incomplete without mention of Lucretius, whose sweeping incorporation of metaphors in *de Rerum Natura* marked a radical shift (compared with Epicurus and Philodemus) in the Epicurean characterization of atoms. For, as we will see, Lucretius' embrace of the epic genre opened Epicurean atomism to a host of new metaphors and explanatory analogies. Although it lies beyond the scope of this study to offer any comprehensive assessment of metaphorical characterization in *de Rerum Natura*, a few illustrative examples should suffice to draw out the essential threads of similarity and difference in how Lucretius and the anti-atomists characterize atoms. With regard to the *Aeneid*, written within a Homeric tradition steeped in philosophical allegory, the rhetorical shift in *de Rerum Natura* would have far-reaching implications for Virgil's allusive use of Lucretian material, particularly atomic physics.

The systematic use of analogy between atomic and human levels of existence is a fundamental feature of *de Rerum Natura*, and many scholars have commented on the artistic and philosophical importance of this strategy.[83] Gail Cabisius, in a study of social metaphors in the poem, provides a characteristic statement of this relationship, describing how "metaphors force the reader to see the atoms in terms of human life and to view human life as a reflection of the creative and destructive cycle of atomic activity" (1984–85: 110). Although many of these Lucretian metaphors correspond to the subjects of comparisons also made by Cicero, such as politics and warfare, Lucretius differs fundamentally in using such metaphors to present a balanced picture of atoms as both creative and destructive, contributing sometimes to order and other times to disorder in an eternal cycle.[84]

As with Cicero's characterization of atomism in his philosophical dialogues, the most common analogy in *de Rerum Natura* is that of political activity, from which Lucretius derives a wide array of individual metaphors

[83] Such is the argument of Schiesaro's (1990) *Simulacrum et imago: Gli argomenti analogici nel* de Rerum Natura, summarized at 9–10. See also Fowler 1989: 145–50. For a detailed account of Empedoclean influence on Lucretius' use of metaphor, see Garani 2007: 151–220.

[84] Cf. the remark by Velleius, Cicero's Epicurean interlocutor, expressing the principle of isonomia at *N.D.* 1.19.50: *si quae interimant innumerabilia sint, etiam ea quae conservent infinita esse debere* ("if the things that destroy are infinite in number, then the things that preserve should also be infinite").

to describe atomic motion.[85] One example, mentioned briefly earlier in this chapter, is the dichotomy between *turba* or *volgus* to describe disorderly groups of atoms, and *coetus* or *concilium* to describe atoms that have combined to form a stable whole.[86] In addition to these, Cabisius notes metaphorical or multivalent uses of *ordo* (2.899), *fines* (1.670–71, 792–93, 3.519–20), *foedera* (1.586; 2.302; 5.310, 924; 6.906–7), *res gerere* (*passim*), *tumultus* (2.956), and *motus* (2.127, 958), among others.[87] Throughout the poem, such metaphors portray atoms in varied states of political concordance or disagreement, corresponding to the cyclical growth and destruction observable in the natural world.[88]

Another pervasive set of metaphors found in Lucretius compares atomic motion with warfare. Although Lucretius did not significantly modify the atomism that he inherited from Epicurus, his widespread use of metaphorical comparisons between atomic collisions and human conflict differentiates him from his Epicurean predecessors. Monica Gale, in her study of Lucretian intertextuality in Virgil's *Georgics*, argues that the metaphorical conflicts of atoms in Lucretius are meant to sway war-weary Roman readers to accept Epicureanism, by implying that if one accepts the atomic conflicts of nature, then one may free oneself from the conflicts of human society.[89] This interpretation finds support in a number of passages, including the prologue of the *de Rerum Natura*, which positions Lucretius' didactic poem as a tool for peace amid the internecine political violence and costly foreign campaigns that wracked the late Roman Republic.[90]

In addition, scholars have also looked to historical and generic considerations to explain the abundance of martial metaphors in *de Rerum Natura*.

[85] See Cabisius 1984–85: 109–110. Regarding Lucretius' indebtedness to Empedocles for his use of political and legal metaphors, see Garani 2007: 52–61, 176–78.

[86] See Cabisius 111, 114–16, who cites Lucr. 2.549–51, 2.919–22, 2.116–28. To this one may add the *turba materiai* ("crowd of material") that is ejected from the dying cosmos at 1.1111–13.

[87] See ibid: 110–16. Cabisius also briefly mentions nonpolitical comparisons to weavers, craftsmen, architects, builders, and generals. For a somewhat dated (thought still quite useful) bibliography on metaphor in Lucretius, see 110, n. 9.

[88] Fowler 1989: 147 remarks that the overall "republicanism" of Lucretius' atomic metaphors generally casts atomism in a favorable light.

See Cabisius 1984–85: 109–10

[89] Gale 2000: 232, "Lucretius holds out to his reader the promise of peace and tranquility, but also depicts the cosmos as the setting for a perpetual war waged between the atoms and natural forces. He asks us to reject the wars and violence which have dominated human history, while accepting the reality of atomic 'warfare.'" Cf. Fowler 1989: 148: "No pact is truly eternal. From this point of view the atoms in a compound are also at war, a civil war."

[90] Lucr. 1.40–42. See McConnell (2012) for a related discussion of civil strife as an ethical (though not strictly historical) concern among Epicureans.

Clyde Murley (1947), David West (1969), and Gale (1994) have documented the poem's deep generic affiliations with Homeric epic, arguing that this view entailed a widespread and consequential adoption of the comparison between warfare and atomic physics.[91] Furthermore, Bailey and West note the influence of Ennian epic, which provides a likely point of contact between the epic genre and Roman history in Lucretius' poem.[92] Gale points out that this type of martial imagery is found nowhere in the extant fragments of Epicurus, but instead appears to be the original contribution of Lucretius, who was responding to Roman cultural norms and attitudes, as well as to the prevalence of warfare metaphors in pre-Socratic philosophy.[93] Whatever the reasons for the widespread adoption of these metaphors, they are an integral component of Lucretius' portrayal of atoms—perhaps even their defining characteristic.[94]

1.5 CONCLUSION

It is clear, I hope, from the preceding discussion that Virgil, when formulating his reception of atomism in the *Aeneid*, had access not only to Lucretius' imaginative descriptions of growth and decay in *de Rerum Natura*, but also to a long and prominent tradition of opposing texts that presented atomic physics as random, violent, and fundamentally unstable. While it is impossible to prove beyond a shadow of a doubt Virgil's familiarity with many of the individual philosophical texts previously discussed, or to prove direct lines of transmission between various anti-atomist philosophers, the ubiquity of images and arguments equating atomic physics with disorder indicates that Virgil could have encountered this negative characterization in any number of philosophical sources. As I demonstrate in the following chapters, although all of the allusions to atomism in the *Aeneid* are crafted from Lucretian intertexts, Virgil filters them through the conceptual

[91] See Gale 1994: 106–28; West 1969: 23–24; Murley 1947: 339–40, 344.

[92] See West 1969: 23–34, 30–33; Bailey 1947: 29–30 (vol. 1).

[93] See Gale 2000: 232: "Lucretius' use of military imagery seems not to derive from his Epicurean sources." Cf. n. 2. For importance of war to Roman culture and literature, see ibid: 240–43, and for prevalence of the warfare metaphor in pre-Socratic philosophy, see ibid: 233–34, as well as Hardie 1986: 235.

[94] For lists of atomic "conflicts" and "wars" in Lucretius see Gale 2000: 234 n. 8–9 and Murley 1947: 343–45.

framework of the anti-atomists, whose characterization of atomism as disorderly he adopts throughout his epic.

One important consequence of this move is reflected in Virgil's choice of Lucretian intertexts, which gravitate toward moments in the poem that emphasize the destructive aspect of atoms. While the early atomists and Epicureans presented their account of cosmology as rational and ordered according to clear mechanical principles of material motion, Aristotle and Cicero (and likely his Hellenistic Greek sources as well) advanced characterizations of atomism as profoundly disordered and irrational, often by using contentious metaphors to support their arguments. However, when Lucretius opened atomism to the social metaphors and martial analogies of epic poetry and Roman culture, he subordinated these images of natural violence and dissolution to a vision of the cosmos as balanced, eternally alternating between cycles of growth and dissolution at both the micro and macro levels. What ultimately makes the reception of atomism in the *Aeneid* so "polemical" is that, when presenting images that evoke atomic motion without any sort of philosophical inversion or Hardian remythologizing, Virgil exclusively recalls the destructive aspect of the Lucretian worldview, without acknowledging the corresponding component of growth and order. In this way, Virgil follows Aristotle and Cicero (and likely the Stoics and Academic Skeptics of the Hellenistic period more generally) in making atomic physics a stand-in for, or symbol of, disorder.

Last, I believe it is essential to recognize that this move is not just a literary ploy meant to assert Virgil's supersession of Lucretius in the poetic tradition, but that it has undeniable philosophical implications for the worldview of the *Aeneid*. By applying a consistently anti-atomist framework to Lucretian atomic allusions, the poem advances a partisan view of Epicurean physics that coheres with its overall orientation toward the trajectory of Roman imperial conquest, the rule of Augustus, and the proper attitude of humanity toward nature and the gods. Instead of seeking to separate these threads or subordinate one to another, we will gain a richer understanding of philosophical and political allegory in the *Aeneid* by asking how these different areas contribute to a unified concept of the relationship between hierarchical order and authority in the poem. In the next chapter I begin by examining the political and historical dimension of this picture, focusing on scenes in which Aeneas and other epic "winners" confront atomic obstacles on their path to progress.

2

Trojans under the Influence of Atomism (Epic Winners)

Tunc omnia rebar
consilio firmata dei . . .
rursus labefacta cadebat
religio causaeque viam non sponte sequebar
alterius, vacuo quae currere semina motu
adfirmat magnumque novas per inane figuras
fortuna non arte regi, quae numina sensu
ambiguo vel nulla putat vel nescia nostri.

—Claudian, *in Rufinum* 1.6–7, 15–19

> I used to think that all things were fixed by divine design . . . But my reverence for the gods wavered and began to slip back, and reluctantly I followed a different way of thinking. It declared that there are atoms that speed along with purposeless motion and strange bodies moving through a great void; that the world is ruled not by art but by chance; and it believed that deities exist in a dubious sense—either that there are really none at all, or that they are unaware of us.
>
> —Claudian

Having concluded the review of atomism's hostile reception in philosophical literature up to the time of Cicero, we may now turn our attention to the *Aeneid* itself, in order to see how Virgil's text responds to many of the same themes concerning chance, purpose, and disorder in its handling of Lucretian intertexts. I begin by investigating allusions to Epicurean atomism that occur in contexts specifically affecting Aeneas and the Trojans. In each of these scenes, Virgil's Lucretian intertexts evoke images of atomic disorder, either when some obstacle threatens the progress of the Trojans' divinely ordained mission to found the Roman people, or when Aeneas shrinks

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from fulfilling Rome's historical destiny.[1] In keeping with the philosophical critiques of Greek and Roman detractors who rejected the possibility of cosmic order without divine regulation, atomism serves in this capacity as a foil to the principles of divine authority and national purpose that guide Aeneas on his journey.

2.1 THE ATOMIC OPENING (NATURE *SINE NUMINE*)

After a brief prologue and explanation of Juno's antipathy toward the Trojans, the narrative proper of the *Aeneid* begins with a plot by the queen of the gods to unleash a deadly storm upon Aeneas' fleet, which is traveling at that time near Sicily. This storm, long recognized as an event of great thematic importance to the poem as a whole, functions in many ways as a thesis statement for Virgil's allegorical handling of politics and cosmology, in which Epicurean atomism plays the role of a disruptive antagonist.[2] In the brief interval between when Aeolus unleashes the winds and Neptune restores order, the chaotic and destructive storm provides a snapshot of natural elements operating without divine oversight. When acting in this way, nature is portrayed as atomic in a manner that is intertextually Lucretian, yet consistent with non-Epicurean critiques of atomism that insist upon the presence of divine intelligence in the cosmos. The profusion of Lucretian allusions in the description of the storm, coupled with its concluding simile (the first of the poem), which compares Neptune to a Roman statesman quieting the riotous winds, sets divine order—associated positively with Roman rule and Augustan governance—in opposition to non-teleological disorder—associated negatively with atomic physics and civic disunity—for the duration of the poem.

As far back as Servius, commentators have identified the Aeolus episode as a touchstone for Virgil's engagement with traditions of philosophical allegoresis

[1] A founding mission ordained not only by divine fate, but also by Homeric poetry. See Poseidon's prophecy concerning Aeneas at *Il.* 20.302–8, and the similar prophecy offered to Anchises at *Hom. Hymn Aphr.* 196–98.

[2] See Feeney 2014: 216, commenting on the programmatic significance of this opening simile as it relates to Epicureanism: "[Virgil's] reworking of Homer has been blended with his reworking of Lucretius, whose patterns of natural chaos are so threatening to the order he wishes to establish in his poem." Scholarship on the storm is extensive; for the foundational importance of the storm for Virgil's engagement with Augustan political culture, with Homeric mythology, and with cosmological allegory, see Galinsky 1996: 20–24; Feeney 1991: 134–37; and Hardie 1986: 90–97, respectively.

in Homeric criticism.[3] Because of their importance within this allegorical interpretive framework, the Homeric poems provide the primary allusive model for the character of Aeolus (cf. *Od*. 10.1ff.), along with a great many intertextual details in the storm.[4] Yet in addition to Homer, another important intertextual source for this scene is Lucretius' *de Rerum Natura*. Lucretian intertexts, many of which precisely recall passages explaining the atomic workings of wind, thunder, and lightning, as well as descriptions of the birth and death of atomic worlds, suffuse the Aeolus episode with natural-philosophical undertones that work in concert with the general allegorizing spirit of the scene.[5] Such details are not, I contend, simply cosmological or epicizing window dressing intended to acknowledge an important poetic predecessor or a literary topos; rather, they meaningfully engage with the philosophy of Lucretius' poem, evoking atomism as a negative model of how cosmological and political structures fail in the absence of authoritative and intelligent guidance.

The first echo of Lucretian storm imagery occurs just before the Aeolus episode, when Juno bemoans the fact that other goddesses have been allowed to avenge themselves against mortal enemies, while she alone is prevented from punishing the Trojans. For a contrast to her own situation, Juno cites Athena's punishment of the Greek fleet on account of the Locrian Ajax:

> ipsa, Iovis rapidum iaculata e nubibus ignem,
> disiecitque rates evertitque aequora ventis,
> illum expirantem transfixo pectore flammas
> turbine corripuit scopuloque infixit acuto (*Aen*. 1.42–45).

> Pallas cast the swift fire of Jupiter down from the clouds, scattering the ships and agitating the sea with winds; and she seized Ajax in a whirling storm while he exhaled flames from his pierced chest, and fixed him upon a sharp rock.

[3] See Serv. ad *Aen*. 1.78, alluding to the etymological connection between *aera* ("aer") and Ἥρα ("Hera"): *Rediit ad physicam rationem. nam motus aeris, id est Iunonis, ventos creat, quibus Aeolus praeest* ("Virgil has returned to physical allegory. For the motion of the air, that is, of Juno, creates the winds that Aeolus commands"). Cf. similar notes ad 1.47, 52, 133, and 142. For the programmatic importance of the storm and its concluding simile to allegorical interpretation in the *Aeneid*, see Cowan 2015: 105; Beck 2014: 67; Feeney 2014: 209–21; Feeney 1991: 132–26; Hardie 1986: 90–97, 180–83; and Phillips 1980: 24.

[4] See Knauer 1964: 175, who argues that Virgil's storm is a composite of the Laistrygonian episode (*Od*. 10.1–132) and the storm in Book 5 (*Od*. 5.282–387). For the view that Virgil's winds may also be mediated through an instance of *physica ratio* in Apollonius (4.766–67), see Phillips 1980: 21.

[5] For the interpretation of the Virgilian scene as a synthesis of Homer and Lucretius, see Hardie 1986: 91.

As a number of commentators have noted, Juno's complaint recalls a passage in the sixth book of *de Rerum Natura*, from a discussion of the atomic causes of lightning. At the end of that passage, Lucretius criticizes traditional mythological explanations for thunderbolts, ridiculing in particular the notion that the gods use lightning to punish wrongdoers:[6]

> cur quibus incautum scelus aversabile cumquest
> non faciunt icti flammas ut fulguris halent
> pectore perfixo, documen mortalibus acre,
> et potius nulla sibi turpi conscius in re
> volvitur in flammis innoxius inque peditur
> turbine caelesti subito correptus et igni? (Lucr. 6.390–95)

> Why do the gods not punish those who have not guarded against some abominable crime, so that they are struck and exhale flames of lightning from their pierced chest, providing a bitter lesson to mortals? Why, instead, is someone who is not an accomplice to any wicked act engulfed in flames and, although guiltless, seized suddenly by a whirling storm of heavenly fire?

In addition to the close verbal correspondence between the descriptions of pierced chests exhaling flame and being seized by a whirlwind, the two passages share an important thematic link. In the context of his rationalizing explanations for meteorological phenomena, Lucretius uses the example of a guiltless person (*innoxius*, 6.394) being struck by lightning to argue that the gods do not employ lightning for the purposes of divine justice; but in the *Aeneid*, Pallas does just that, using a thunderbolt to punish a mortal crime (*unius ob noxam* 1.41). Along these lines, Hardie identifies this allusion as an example par excellence of Virgilian remythologization: Virgil has taken a passage from Lucretius that seeks to rationalize (or "demythologize") a natural phenomenon, and has restored the divine explanation, all the while hewing closely to the language of the original.[7] In this particular case, then, the allusion is thoroughly polemical and performs a clear inversion on the source text, retaining Lucretian verbiage while dispelling Lucretian physics.

[6] See C-N ad *Aen*. 1.45 and Bailey 1947 ad Lucr. 6.392. See also Serv. ad *Aen*. 1.42: *E NUBIBUS secundum physicos qui dicunt conlisione nubium fulmen creari* ("'From the clouds': this is according to the natural philosophers, who say that lightning is created from the collision of clouds").

[7] See Hardie 1986: 179–80.

However, Juno's complaint is that this is precisely how divinity in nature is *supposed* to work, with natural elements subordinated to divine purposes, and that she has been wronged for not being allowed the same opportunity as Pallas. By intervening with Aeolus, Juno momentarily subverts the normal divine order—or at least the traditional chain of command within the Olympian hierarchy, over which Jupiter presides. Therefore, her normative picture of divinely controlled lightning at *Aeneid* 1.42–45 marks a point of departure for the storm that follows, the chaos and disorder of which is portrayed as simultaneously elemental and cosmic in scale. This turn from order to disorder in the storm is mirrored by a shift in how Virgil deploys his Lucretian intertexts. Instead of remythologization and the suppression of philosophical content, we instead see allusions that preserve the spirit of atomism, importing Epicurean physics into the poem in a manner that allegorizes the storm winds as symbols for the non-teleological disarray of atomism.

The first hint of this shift occurs in Virgil's depiction of the cave of the winds, which represents an intermediary stage between Hardie's remythologizing and the type of tendentious, metaphorical importation of atomism for which I am arguing.[8] In a memorable description composed from varied poetic and mythological sources, Virgil describes how Aeolus reigns over the winds in a great mountain cave, where the chaotic winds are held like prisoners:[9]

> illi indignantes magno cum murmure montis
> circum claustra fremunt (*Aen*. 1.55–56)

> The winds howl resentfully around the bars of the mountain with a great roar.

At the level of individual words, these two lines are overwhelmingly indebted to an earlier section of the Lucretian passage previously mentioned, where the poet explains the formation of lightning within clouds by means of a cave simile:[10]

[8] For a detailed list of Lucretian parallels in Virgil's description of the cave of the winds, see Hardie 1986: 237–40.

[9] See Hardie 1986: 90–97 for discussion of Hesiodic models of gigantomachy in the Aeolus episode.

[10] See Phillips 1980: 20, who suggests that "Lucretius' simile may well have been suggested by an older belief that the violent winds are cave dwellers, if not prisoners there," citing *Il.* 23.200 and Callim. *Hymn* 4.65. Hardie 1986: 181 also links the *fremunt* of *Aen*. 1.56 to a description of earthquake-causing winds at Lucr. 6.581: *speluncas inter magnas fremit ante tumultu* ("first they howl through the great caves in disorder").

> tum poteris magnas moles cognoscere eorum
> speluncasque vel ut saxis pendentibus structas
> cernere, quas venti cum tempestate coorta
> conplerunt, magno indignantur murmure clausi
> nubibus in caveisque ferarum more minantur,
> nunc hinc nunc illinc fremitus per nubila mittunt (Lucr. 6.194–99)

> Then you will be able to recognize the clouds' great mass, and to see their caves built up as if from hanging rocks. And when a storm has arisen and the winds have filled the clouds up, locked within the clouds they chafe with a great roaring sound, menacing like beasts in their hollows; now here, now there, they send their howling through the clouds.

Hardie cites this intertext as another example of remythologizing, and to an extent the same can be said of the entire Aeolus episode, since here Virgil introduces rationalizing atomic descriptions of wind to a narrative world populated by Homeric and Roman gods, to whose authority they must eventually yield.[11] Yet I would like to complicate this straightforward picture by suggesting that, within the dominant Homeric framework of divine authority that governs the poem as a whole, discrete episodes occur in which demythologized atomic images are imported *without inversion* in order to present a challenge to the established order. In such cases, allusions of the remythologizing variety act as a backdrop of poetic convention and cosmic stability against which the demythologizing sort may perform their antagonistic function. While all of these challenges are ultimately defeated (in the case of the storm, by Neptune), they add dynamism to the allegorical conflicts of the poem, suggesting a narrative for the cosmological movement from disorder to order a narrative that parallels the journey of Aeneas from the ruins of Troy to the fields of Latium.

In the case of the winds trapped within Aeolus' cave, we may thus reinterpret the image not as one of total remythologization, but as one in which chaotic atomic forces are constrained (however tenuously) by a mythological figure that is suggestive of both divine and human political authority.[12] While the interpretive frame for the cave and its warden is both literally (within the world of the poem) and literarily (by Homeric convention) mythological

[11] See Hardie 1986: 180.

[12] Aeolus is a *rex* ("king," 1.52), and rules over the winds with *imperium* ("absolute command," 1.54); see pp. 65–66. For further discussion of Aeolus as a political figure, see Cowan 2015: 110–13.

and divine, its prisoners remain Lucretian and Epicurean, albeit according to the uncharitable interpretation of atomic physics discussed in the previous chapter.

The cosmic scale of this threat becomes clear in the lines immediately following. In a counterfactual description laden with ominous foreshadowing, Virgil describes what would occur if Aeolus did not keep the Lucretian winds confined to their mountain prison:

> celsa sedet Aeolus arce
> sceptra tenens, mollitque animos et temperat iras.
> ni faciat, maria ac terras caelumque profundum
> quippe ferant rapidi secum verrantque per auras. (*Aen.* 1.56–59)

> Aeolus sits upon the lofty citadel with his scepter, softening the winds' spirits and restraining their anger. If he did not do this, then of course the swift winds would carry away the seas and lands and the vast sky, and would sweep them away through the air.

As Hardie and others note, Homeric and Hesiodic descriptions of gigantomachy provide structural models for this scene, along with certain linguistic details, while the "seas, earth, and sky" expression (*maria ac terras caelumque*) reflects a tripartite conception of the world that is prevalent in archaic Greek poetry.[13] Yet once again, the preponderance of intertextual raw material for the Virgilian lines derives from a noteworthy passage of Lucretius, through which the earlier Greek models are filtered:[14]

> sunt igitur venti nimirum corpora caeca
> quae mare, quae terras, quae denique nubila caeli
> verrunt ac subito vexantia turbine raptant. (Lucr. 1.277–79)

> There are, therefore, blind atoms of wind that sweep across the sea, the lands, and the clouds of the sky, violently tossing and snatching them up with a sudden whirlwind.

[13] See Hardie 1986: 90–97, 313–25, along with Schmidt (1981).

[14] See Hardie 1986: 92–93, along with C-N ad 1.59. C-N go even further, arguing that Virgil's *per auras* ("through the air") is equivalent to the Lucretian phrase *per inane* ("through the void"). O'Hara 1996: 95 also tentatively posits that the pun on *animus* ("mind") and ἄνεμος ("wind") in *Aeolus . . . m ollit . . . animos* ("Aeolus . . . softens . . . the winds") at *Aen.* 1.56–57 may be indebted to Lucr. 5.1230.

As the underlined parallels make clear (*mare*, *terras*, *caeli*, *verrunt*), Virgil borrowed heavily from the vocabulary of the Lucretian passage. In addition to these direct verbal correspondences, Virgil's *quippe* ("of course"), an adverb used to introduce obvious conclusions, picks up on the didactic tone of the Lucretian passage, which uses the synonym *igitur nimirum*. While *quippe* is a relatively unusual word in Virgil, appearing just five times in the *Aeneid* and four times in the *Georgics*, it is a mainstay of Lucretian didactic style, occurring 46 times in *de Rerum Natura*.[15] In isolation, Virgil's use of *quippe* would not be remarkable, but the accompanying presence of so many Lucretian intertexts brings the didactic force of that word to the fore.[16]

Q*uippe*, therefore, invites us to recall the Lucretian intertext as a specifically didactic and philosophical allusion, and the context of its source passage provides clues for how to interpret it. In *de Rerum Natura*, the lines about wind rushing over sea, earth, and sky occur in a passage where Lucretius argues for the existence of atoms (even though we can't see them) by appealing to meteorological phenomena that lack visible causes. Therefore, *as a didactic explanation*, the Lucretian passage offers a memorable model of weather that reduces the awesome power of wind to the mechanical action of "blind atoms" (*corpora caeca*). When reading the Virgilian allusion through this didactic lens, one may infer the latent power of Lucretius' atomic explanation, which, like his *corpora caeca*, is unseen but still felt.

Likewise, Virgil's contrast between the atomic threat of the winds and the divine oversight of Aeolus echoes the popular characterization of atomism (or any non-teleological theory of materialism) in philosophical literature as a sort of chaos that must be given order by divine intelligence. In classic allegorical fashion, Virgil's image of Aeolus presiding over the disorderly forces of nature emphatically makes the point that nature, like a political organization, requires intelligent leadership to function successfully and to avoid cataclysmic disorder. And, as we will see with the simile of the Roman statesman at the end of the storm, this allegorical point is not only cosmological and political, but also historical, and even has implications for Roman society in Virgil's time.

When Juno solicits Aeolus' cooperation in unleashing a storm on the Trojan fleet a few lines later, she again uses language that echoes natural

[15] *Quippe* also occurs twice in the fragments of Ennius' *Annales*, although the context in each case is uncertain.

[16] Cf. Thomas 1986: 175, who discusses how Virgil adopts the Lucretian didactic tagline *nonne vides* ("do you not see?") in a similar fashion in the *Georgics*.

philosophy. In this case, however, the Virgilian lines may simultaneously evoke both Homer and Lucretius:

> incute vim ventis[17] submersasque obrue puppes
> aut age diversos et disiice corpora ponto (*Aen.* 1.69–70).

> Drive force into the winds; sink the ships and strike them down, or drive them apart and cast aside the bodies into the sea.

Although ἄνεμοι ("winds") in Homeric poetry are most often paired in genitive constructions with other wind-specific words like ἄελλα ("stormy wind"), θύελλα ("hurricane" or "squall"), ἀήτης ("blast" or "gale"), and ἀϋτμή ("breath"), Homer twice uses similes that describe a stone wall resisting the "forces of the winds" (βίας ἀνέμων, *Il.* 16.213, 23.713). In Latin literature, the notion of wind possessing *vis* ("force") is not unprecedented, but it is only sparsely attested in authors prior to Virgil outside of Lucretius, and occurs nowhere else in the Virgilian corpus.[18] Lucretius, on the other hand, uses the Latin phrase *venti vis* ("the force of the wind") repeatedly.[19] Tellingly, all of these uses occur in explanations that stress the atomic causes of wind phenomena and, as a result, despite its apparent Homeric origins, the phrase comes to function as formulaic shorthand for the underlying atomic causes of wind.[20] Indeed, the phrase appears prominently at the beginning of the Lucretian passage previously discussed, where the Epicurean poet offers storm winds as an example of a physical phenomenon with an invisible atomic cause: *principio venti vis verberat incita pontum* ("first, the force of the wind is stirred up and strikes the sea," Lucr. 1.271).[21] Because Lucretian usage offers itself as a likely intermediary between Homer's βίας ἀνέμων ("forces of the winds," *Il.* 16.213, 23.713) and Virgil's *incute vim ventis* ("drive force into the winds," *Aen.* 1.69), and because the *vis venti* ("force of the wind") is

[17] There is some debate over the correct meaning of this dative. Servius offers two possibilities, while Usener 1865/1913: 125 proposes emending it to *vis venti* ("the force of the wind"). Although Usener does not mention Lucretius, his proposed emendation would make the Virgilian phrase conform exactly to Lucretian usage.

[18] Cf. Cic. *Inv.* 2.98 *vis ventorum* ("the force of the winds").

[19] Nine times in total: 1.271, 6.281, 6.300, 6.431–32, 6.436–37, 6.510, 6.518, 6.560, and 6.592.

[20] In the passage leading up to the description of winds, Lucretius repeatedly describes atomic collisions as a *vis* (1.219, 238, 243, 247), with the effect that later uses of the phrase *vis venti* evoke the atomic *vis* just described. This strategy is replicated in the description of rushing water within the same passage: *venientis aquai/ vim* ("the force of the arriving water," 1.285–86).

[21] Given the similarity in both sound and theme, Juno's *incute* at 1.69 may even subtly pick up *incita* at Lucr. 1.271.

always an explicitly *atomic* force in Lucretius, Juno's command provides us with yet another intertextual datapoint in support of a philosophically sensitive reading of this passage, especially given the pervasiveness of Lucretian intertexts in the episode as a whole.

If we accept this allegorical and intertextual identification of Aeolus' winds with Epicurean atoms, then the moment in which the winds are finally let loose from their mountain prison acquires an additional philosophical twist. In lines that continue to draw upon Lucretian description of wind for their tone and vocabulary, Virgil depicts the unruly winds as soldiers sallying forth from a camp:[22]

> ac venti, velut agmine facto
> qua data porta, ruunt et terras turbine perflant (*Aen.* 1.82–83)
>
> And the winds, like when a formation of soldiers sallies forth from an open gate, rush out and blow through the land in a whirlwind.

As Servius notes, the word *agmen* is polyvalent in this context, identifying the winds not only as a line or multitude, but also as an attacking military formation.[23] Furthermore, the phrase *qua data porta* ("from an open gate") suggests a sally from the gates of a walled city or camp.[24] Hardie, drawing a connection to the "sorties" of subterranean winds in Lucretius, classifies this detail as another instance of remythologizing, and through this interpretive lens views all of the Lucretian intertexts in the storm scene as participating in "a conscious revision of Lucretian theology," whereby atoms are banished in favor of mythological explanations (1986: 180–81).[25]

Yet it is important to point out, as I have shown in the previous chapter, that the dichotomy of demythologizing versus remythologizing is not the only interpretive model available for making sense of Lucretian material in the *Aeneid*. While Virgil surely was aware of Lucretius' creative

[22] For *turbine perflant*, cf. Lucr. 1.277: *turbine raptant* ("they ravage them with a whirlwind").

[23] See Serv. ad 1.82. For the use of this phrase in martial contexts, cf. *Aen.* 8.595–96: *armati tendunt; it clamor, et agmine facto/ quadripedante putrem sonitu quatit ungula campum* ("armed, they clash; a clamor arises and, when the line has been formed, hooves shake the crumbling ground with their four-footed din").

[24] See Hardie 1986: 181, as well as Serv. ad 1.83: *aut ideo "porta." quia "agmine" dixerat; nam porta proprie aut urbis aut castrorum est* ("Or it is a 'gate,' because he said 'formation.' For the word 'gate' is used properly of cities or of fortified camps").

[25] Cf. Lucr. 6.582–83: *incita cum vis/ exagitata foras erumpitur* ("when the violent force is driven out and bursts forth"). As Hardie 1986: 181 n. 65 notes, *erumpere* is often used for sorties and sallies.

anthropomorphizing of wind atoms, he also had access to an anti-atomist philosophical tradition (best captured in Cicero's dialogues) that militarized atoms for other purposes. In the Ciceronian metaphor of an *incursio* ("assault") of atoms against the gods, the purpose of militarizing Epicurean physics is not to remove atoms from the picture entirely, but to retain them as a negative *exemplum*, showing how they present an undesirable and chaotic alternative to divine providence.[26] In the case of the winds sallying forth from Aeolus' cave, I would argue that something similar is happening: although the winds are not literally composed of atoms, they are presented in distinctly atomic terms as enemies of the established divine order, and thus we may interpret their attack upon the Trojan fleet as an allegorical conflict between an atomic, non-teleological conception of nature and a more traditional Homeric understanding of divine authority as a top-down hierarchy.

I would like to stress at this point that my interpretation is not wholly incompatible with the notion of remythologizing. Indeed, Hardie's own analysis of certain Lucretian moments in the storm at the beginning of Book 1 largely supports the notion that we are meant to feel its "atomic" nature on some level. It is a matter, rather, of how literally or allegorically we choose to interpret the various intertextual importations of atomic descriptions from Lucretius. For example, in Virgil's description of men and material scattered and floating helplessly in the stormy waters of the Mediterranean, Hardie perceives a glimpse of Lucretius' material world without remythologization: *Adparent rari nantes in gurgite vasto,/ arma virum, tabulaeque, et Troia gaza per undas* ("The Trojans appear scattered, swimming in the vast whirlpool; the arms of the men, wooden planks, and Trojan riches spread through the waves," *Aen*. 1.118–19).[27] In a similar moment when Neptune finally notices the disturbance on the surface above, the sea god perceives the Trojans "overwhelmed by the waves and the destruction of the sky" (*fluctibus oppressos Troas caelique ruina*; *Aen*. 1.129), where *caelique ruina* evokes a different passage in which Lucretius imagines the disastrous consequences of applying an incorrect rival theory to an atomic world:[28]

[26] *N.D.* 1.41.114. See pp. 42–43.

[27] See Hardie 2009: 160, comparing the scenario imagined at Lucr. 2.547–59 of what would happen to an atomic world that did not have an infinite number of atoms: "The dispassionate gaze as from above on the configuration of the swimmers as isolated specks in a vast expanse suggests a Lucretian vision of the texture of the material world."

[28] Exactly which rival theory is uncertain, as the passage follows a considerable lacuna in the text; see Bailey ad 1.1083. Although the Lucretian intertext cited comes from a hypothetical situation in which Lucretius describes an *incorrect* notion about matter or space, it is still imagined in *atomic* terms.

terraque se pedibus raptim subducat et omnis
inter permixtas rerum caelique ruinas
corpora solventis abeat per inane profundum,
temporis ut puncto nil exstet reliquiarum
desertum praeter spatium et primordia caeca. (Lucr. 1.1106–10)

[Lest] the earth suddenly pull away from beneath our feet and pass away through the deep void, among all the mixed-up ruins of the sky and of things that release their atoms; so that in a single moment of time nothing remains except desolate space and the blind first-atoms.

In the Lucretian passage, *caelique ruinas* refers specifically to the collapse of the shell of atoms (*moenia mundi*, or "walls of the world," in Lucretian parlance) that enclose and protect every cosmos, and the subsequent spilling of the world's contents into the inter-cosmic void. Although the world of the *Aeneid* is decidedly not atomic, the storm in many ways is a departure from the normal state of affairs in nature. A significant element of this departure, I contend, is a temporary shift in Virgil's Lucretian allusions from the Hardian remythologizing variety to a mode in which the atomism of the source material is imported without inversion to serve as a symbol of disorder.

But the question remains: why did Virgil enlist Epicurean atomism for this purpose, and not some other philosophy? Or, to put it another way, what reasons do we have for supposing that Virgil's polemical use of atomism in the storm is a philosophically meaningful component of the poem's allegorical or thematic structure, and not an incidental consequence of what is a more fundamentally poetic or "literary" rivalry with Lucretius? The strongest evidence for preferring the more philosophically sensitive interpretation occurs at the end of the storm, when Neptune restrains the unharnessed winds and restores order to the sea and sky. In a moment that cleverly signals the allegorical spirit of the scene as a whole, the sea god rebukes the winds for defying his authority:

iam caelum terramque *meo sine numine*, venti,
miscere, et tantas audetis tollere moles?
quos ego—sed motos praestat componere fluctus. (*Aen*. 1.133–35)

Now you dare, you winds, to raise such disturbances and mix up the sky and earth *without my divine consent*? Which I—but I should compose the waves that have been stirred.

As Hardie points out, the beginning of Neptune's speech casts the storm in Lucretian terms by echoing a passage of *de Rerum Natura* that uses similar language, comparing the atomic formation of new worlds to a storm.[29] Yet the tip-off for understanding the intentionally allegorical character of these lines is not found in the Lucretian intertexts, but in Neptune's self-interruption, one of the most celebrated instances of aposiopesis in ancient poetry: *quos ego—sed motos praestat componere fluctus* ("Which I—but I should compose these stirred-up waves." *Aen*. 1.135). When Neptune, who is "deeply troubled" (*graviter commotus*, 1.126) by the renegade storm, enjoins himself to calm the stirring waves, his choice of idiom allows for three simultaneous interpretations: (1) that he should cease rebuking the winds in order to calm the storm waves (*motos fluctus*) on the surface of the sea; (2) that, in keeping with a common tendency in Roman poetry to metonymically equate Olympian gods with the physical elements over which they have power, Neptune himself is the *fluctus*, and is therefore calming a physical manifestation of his own being;[30] and (3) that he should calm his own disturbed *emotions* (*motos fluctus*) before returning to the task at hand of restoring order.[31] While all of these scenarios are plausible, I would like to focus on the third one, which does the most to blur the distinctions between physical and metaphorical understandings of the storm waves.

As Servius and others note, the rhetorical device of aposiopesis indicates great agitation in the speaker, while *fluctus* is used a number of times in the *Aeneid* as a striking metaphor for emotional disturbance.[32] The *fluctus* metaphor in Neptune's speech, therefore, works in the opposite direction of that assumed by Hardie's remythologizing thesis; instead of casting materialistic atomic images in mythological terms, the ambiguous phrasing allows

[29] Cf. Lucr. 5.432–39. See Hardie 1986: 190–91. In his reworking of that passage, Virgil reverses the direction of the comparison, while making the atomic element of the analogy suggestive rather than explicit.

[30] Cf. Virgil's metonymic use of *Bacchus* to mean "wine" or "the vine" (e.g., *G*. 1.344, 2.113) and of *Ceres* to mean "grain" (*G*. 1.297; *Aen*. 1.177, 701).

[31] For the mental connotations of *motus* in this context, cf. the ambivalent use of *commotus* at 1.126, where it may refer to Neptune's emotional disturbance, or the physical disturbance on the surface of the sea. See also Hardie 1986: 227–29, who discusses Lucretian antecedents for conflating mental processes with natural phenomena.

[32] Serv. ad 1.135 describes Neptune's state of mind as *quasi irati et turbatae mentis* ("as if he were angry or had a disturbed mind"). See also la Cerda 1617 at the place. For other examples of emotional *fluctus* in the *Aeneid*, cf. 12.831: *irarum tantos volvis sub pectore fluctus* ("you seethe with such great waves of anger"); and 12.526: *fluctuat ira intus* ("anger flows within"). In addition to indicating strong emotions, Neptune's abrupt self-interruption may also signal his desire to take swift action or, as Quint 2018: 20 argues, an anger so furious that it threatens violence in the event of the rebellious winds' noncompliance.

for the workings of the god's mind to be interpreted in physical terms that correspond to the water over which he rules, or to an allegorized understanding of divinity in which Neptune *is* the water. By so thoroughly conflating divine, emotional, and material disturbances in this passage, the god's own language suggests a mode of interpretation that is both allegorical and materialist.

The core of Neptune's complaint, however, centers upon the issue of divine authority—since the winds acted without his permission—and it is here that the philosophical importance of the Lucretian intertexts comes into its sharpest focus. Interpreted literally, Neptune reproaches the winds for acting without his guiding organization, *meo sine numine* ("without my divine consent"), with *numen* evoking its etymological roots as the *nutus* ("nod") of divine approval. Like many seemingly innocuous phrases in Virgil, the phrase has Homeric antecedents, potentially evoking ἀέκητι θεῶν ("against the will of the gods") or its antonym, οὐκ ἄνευθε θεῶν ("not against the will of the gods").[33] Yet *numen* is also frequently used in both poetry and prose to denote specific divinities, or the notion of divinity itself, primarily conceived of in its role as a ruler of nature and of human affairs.[34] It is not just some insensate force or inert entity, but a necessarily *intelligent* power.[35] Accordingly, Neptune does not simply fault the winds for acting without his assent, but for operating without his divine, ordering intelligence.

This timely evocation of divine intelligence, at the moment when a divinity reasserts its control over blind elemental forces that have been portrayed in overwhelmingly Lucretian and atomic terms, taps directly into the anti-atomist philosophical tradition discussed in the previous chapter. As we saw there, prominent teleological philosophers such as Aristotle and the Stoics saw cosmic intelligence as a precondition for order, while, conversely, the lack of such intelligence reduced atomic physics to a cosmology of disorder. In light of the many Lucretian allusions to atomic motion, Neptune's complaint that the winds acted *meo sine numine* ("without my divine consent,"

[33] Cf. *Il.* 12.8 and *Od.* 4.504. See C-N ad 1.133 for further comment on the meaning and antecedents of *sine numine*.

[34] Virgil's phrase also potentially evokes a passage of Lucretius in which the Epicurean philosopher takes to task those who believe that nature cannot act without the divine assent of the gods, *deum sine numine* ("without the divine consent of the gods," Lucr. 2.168).

[35] This notion relies on the conflation of multiple meanings for *numen*: "divine power as controlling events or activities" (*OLD* s.v. 3), "divinity." (s.v. 4) and "a deity, god" (s.v. 6). Cf. Cicero's usage at *Fin.* 3.19.64: *mundum . . . censent regi numine deorum* ("they believe that the world is ruled by the will/intention of the gods") and *Div.* 2.124: *visa somniorum profiscisci a numine deorum* ("the thing seen in dreams derive from the will/intention of the gods").

1.133) opens up the storm to interpretation as a materialist event—a mythological portrayal of what an atomic world would look like in the absence of divine organization. In crucial ways, Neptune's rebuke of the winds and subsequent restoration of divine control identify the cosmological leanings of the poem as anti-atomist, favoring a hierarchy of divine intelligence and human (as well as elemental) submission as its model of order.[36]

Although thus far I have focused on the cosmological and philosophical dimensions of Virgil's allegorizing, Neptune's intervention also relates atomism and the storm to a model of civic relations that is thoroughly grounded in the recent Augustan revolution in Rome's political order. From the outset of the storm, Virgil foregrounds this political element by describing Aeolus as a *rex* ("king," 1.52) whose relationship to the unruly winds is defined in terms of *regnum* ("kingdom," 1.78) and *imperium* ("absolute command," 1.54). As Robert Cowan argues, Aeolus is depicted as a weak leader, according to Hellenistic theories of kingship, and his failure to restrain the winds results in a condition comparable to stasis or civil war.[37] By contrast, Neptune provides a more positive (and specifically Roman) model of authoritative leadership at the end of the storm, when he restores the seditious winds to order:[38]

> Ac veluti magno in populo cum saepe coorta est
> seditio, saevitque animis ignobile volgus,
> iamque faces et saxa volant—furor arma ministrat;
> tum, pietate gravem ac meritis si forte virum quem
> conspexere, silent, arrectisque auribus adstant;

[36] For this view of the relationship between divinity, humanity, and nature in the *Aeneid*, see Hardie 1986: 199: "The progress of Aeneas can also be understood as one towards the control or conquest of nature; but the emphases are not those of Lucretius. The success of Aeneas (and of Rome) is very much a physical mastering of the universe; the process of expansion is achieved not through the flight of the soul, but through the physical extension of Rome's power until it fills the universe."

[37] For discussion of Aeolus' weakness in light of Hellenistic king theory, see Cowan 2015: 110–13. Cowan discusses the intersection of Hellenistic theory and Roman practice at 103–4.

[38] For the programmatic importance of this simile in mapping out the role of allegory in the poem, see Beck (2014) and Feeney 2014: 209–21. As Beck notes, "The first simile of the *Aeneid* introduces readers to ideas about allusion, theme, plot, and interpretation that map out for readers the contours of their roles as interpreters of the *Aeneid* . . . Perhaps most striking of all, the simile resonates both with the main story of the *Aeneid* and with its political or allegorical interpretation to create a complex narrative that conveys meaning as a narrative on multiple levels" (2014: 67). Beck also helpfully summarizes previous approaches to interpreting the simile at 68–69. Cf. Feeney 2014: 211, who compares this simile with the first one of the *Georgics*, which also alludes to Lucretius: "The first simile of the *Georgics* . . . serves to focus the poem's concerns about the limits of human ability to impose order on the world of nature and of politics. These concerns return in the first simile of the *Aeneid*."

> ille regit dictis animos, et pectora mulcet,—
> sic cunctus pelagi cecidit fragor, aequora postquam
> prospiciens genitor caeloque invectus aperto
> flectit equos, curruque volans dat lora secundo. (*Aen*. 1.148–56)

> And just like when civil discord has arisen among a great people and the ignoble crowd rages in its mind, and now torches and rocks fly, since fury provides weapons; then, if they happen to have spied some authoritative man who is distinguished by his sense of devotion and his worthy deeds, they fall silent, standing there with their ears turned up; and that man directs their minds with his words and calms their hearts—in the same fashion, all the crashing of the sea has subsided after Father Neptune looks over the waters and, carried through the open sky, turns his horses and flies, giving rein to the responsive chariot.

This image of the statesman, which constitutes the first simile of the poem, evokes a variety of possible models. While scholars disagree over the identity of the primary literary model for this description, many point to a simile near the beginning of the *Iliad*, when Agamemnon's duplicitous order to abandon the siege and return home to Greece unintentionally stirs up disorder in the assembly like a rising storm (2.142–49).[39] As Beck and Feeney note, Virgil reverses the Iliadic simile in two ways: first, by making nature the subject of the comparison, rather than its object; and second, by presenting an image of order being *restored*, rather than one of disorder breaking out.[40]

Just as importantly, Beck notes that the metaphor of the populace-as-storm was common in Roman discourse by the time of Cicero, and that, along with the figure of the statesman, Virgil's simile synthesizes Homeric and Roman models of leadership.[41] In this vein, scholars have proposed numerous specific historical models for the identity of the statesman, ranging from Cato the Younger to Aeneas and Augustus.[42] While an exact identity

[39] See Beck 2014: 69–73, who notes that this interpretation goes at least as far back as Servius. Beck also identifies the idealized description of kingship at Hes. *Theog.* 81–92 as a popular candidate for being Virgil's principal model.

[40] See Beck 2014: 70–71 and Feeney 2014: 213–14. In contrast, the simile at *Aen*. 7.585–600, which occurs when war breaks out in Latium, restores the populace-as-storm comparison to its original Homeric settings. See Cowan 2015: 98 and Feeney 2014: 218–20.

[41] Beck 2014: 74–75. Cf. Feeney 2014: 215–16, which connects Cicero's use of storm imagery to his prioritization of oratory over military violence in the proper governing of the state. The most discussed Roman comparison in modern scholarship is Cic. *Clu*. 49, while Serv. ad 1.148 cites Cic. *Mil*. 5.

[42] For a roundup of historical interpretations, see Cowan 2015: 106 n. 23.

is difficult to pin down, a number of details in the simile suggest that the statesman embodies a particularly Augustan ideal of leadership, which connects historical, divine, and contemporary sources of Roman authority in the figures of Aeneas, Neptune, and Augustus.[43] Karl Galinsky, who discusses this simile as the paradigmatic example of "Augustan" literary fashioning, argues that the image of the statesman reflects core themes of Augustus' self-representation as expressed later on in the *Res Gestae*: "The man's *auctoritas* rests on his *gravitas*, on his devotion to country and gods (*pietas*), his abilities as a speaker, and his actions and achievements (*meritis*)" (1996: 21).[44] In support of this reading, Galinsky points out three points of similarity between Aeneas, Neptune, and Augustus. First, Virgil's description of the statesman as "a man serious by virtue of his sense of duty" (*pietate gravem virum*, 1.151) echoes the programmatic description of Aeneas in the proem as "a man distinguished by his sense of duty" (*insignem pietate virum*, 1.10), implicitly comparing Aeneas to the more modern image of Roman leadership (1996: 23). Second, Galinsky cites non-Virgilian examples of Neptune imagery from coins and engravings of the 40s and 30s BCE, including an engraved depiction of Augustus holding a trident and driving the sea god's chariot over foaming waves from the late 30s BCE, as evidence that Neptune in particular was associated in that period with the triumph of political order over chaos.[45]

Last, recent historical events in the 30s as well as later developments in Book 7 of the *Aeneid* make it likely that Virgil's contemporaries would have perceived in the unnamed statesman a reminder of Augustus' leading role in putting an end to civil strife at Rome.[46] In particular, as Francis Cairns argues in *Virgil's Augustan Epic*, the figuring of the storm in Book 1 as a Roman *seditio* anticipates the outbreak of civil war in Book 7, which in turn evokes the historical reality of Roman civil wars in Italy.[47] This connection between

[43] For the interpretive (and complementary) polyvalence of the storm episode more generally, compare the comment at Phillips 1980: 24: "To look back, in the Aeolus narrative Vergil expresses three points of view: the traditional myth of Greek epic, the nature allegory of physical speculation, and preëminently the new Augustan order with its stabilizing subordination of all things to Caesar, a functioning in which the state not only imitated but participated in the divine order."

[44] By "Augustan" literary fashioning, I mean not only the princeps' self-representation, but also his favorable portrayal by other writers of the period. See Galinsky's discussion of *auctoritas* as a defining theme of Augustus' political career, as well as of the literature and culture of the period as a whole (1996: 10–20).

[45] See Galinsky 1996: 21–23, as well as Zanker 1988: 102–3. Hardie 1986: 205 adds a further point of non-Virgilian comparison at Propertius 4.6.60–64, where sea gods celebrate the victory at Actium.

[46] See Galinsky 1996: 21–23; Cairns 1989: 94–95; Hardie 1986: 204–5.

[47] See Cairns 1989: 94–95.

the generically late-Republican political disturbance of the simile in Book 1 and the Italian war in the second half of the *Aeneid* is further reinforced by a repetition and reversal of that simile in Book 7, where actual rioting outside of King Latinus' palace is compared to a sea storm (*Aen*. 7.585–600).[48] Thus, as a remedy to the cosmological disorder caused by Aeolus' atomic winds, Virgil's description of Neptune suggests a conflation of divine power with Augustan political authority.

In summary, the simile of the statesman suggests that an authoritative Roman leader stands in the same relationship to the urban *populus* as a god does to the natural elements over which he presides. Such imagery is a characteristic feature of Augustan representation, which has the effect of dressing the regal idea of Augustus' godlike power in the garb of Rome's monarchical and republican traditions. Coming as it does at the end of a storm that is figured in various ways as atomic, the statesman simile ties together the different threads of cosmological and political allegory, establishing allusive associations between Augustus and Neptune, Augustus and Aeneas, the urban mob and sea storms, and sea storms and atoms. This web of overlapping mythological, political, and cosmological associations conflates order with divine teleology and with Augustan rule, while conflating disorder of all types with atomism and mob rule.

2.2 ATOMIC DISASTERS

For the remainder of the poem, Aeneas and the Trojans are haunted by similar delays and disasters that are presented as atomistic in some respect. These setbacks occur conspicuously at moments that pit atomism against the unity and success of the Trojan people, thereby reprising the allegorical conflict between Roman order and atomic disorder established in the opening storm. A prominent example of this pattern occurs in Book 2, during Aeneas' narration of the sack of Troy. In the midst of the Greek onslaught, Virgil offers a snapshot of Troy as a city abandoned by its tutelary gods, and in his descriptions of the ensuing destruction the poet draws upon Lucretian images of cosmic and societal unraveling to portray the city's fall as an atomic catastrophe.

When the Greeks first breach Troy's defenses from within, securing the walls and gates, Aeneas quickly realizes that the city cannot hold. Following

[48] See Cowan 2015: 98 (esp. n.4).

Panthus (2.324–27) in acknowledging the ultimate futility of their situation, the Trojan leader enjoins his comrades to join him in a suicidal counterattack:

> excessere omnes adytis arisque relictis
> di quibus imperium hoc steterat; succurritis urbi
> incensae. moriamur et in media arma ruamus (*Aen*. 2.351–53).

> "The gods have departed and left behind their temples and altars—all the gods on whom our sovereign power depended. You rush to assist a city already put to the flame. Let us die and throw ourselves into the midst of the fighting."

By framing Troy's destruction as the consequence of abandonment by its gods, Virgil reproduces an important dynamic from the opening storm, in which the temporary absence of divine oversight gives rise to a maelstrom of chaotic violence.[49] As with the earlier storm, this divine absence, which is matched by a cluster of thematically relevant Lucretian intertexts, offers a brief picture of what the world looks like in the absence of cosmological teleology and its associated political order. And, as before, this frightening picture is decidedly atomic, comparing Troy's fall to the unraveling of an atomic cosmos and to the plague-driven societal collapse depicted at the end of *de Rerum Natura*.

The specifically atomic character of this collapse is evident just a few lines after Aeneas and his companions rush to join the battle, when Virgil pauses from linear narration to give a panoramic view of the destruction engulfing the city:

> urbs antiqua ruit multos dominata per annos;
> plurima perque vias sternuntur inertia passim
> corpora perque domos et religiosa deorum
> limina (*Aen*. 2.363–66).

[49] One may argue that the gods are not *really* absent, since Venus reveals them to Aeneas around line 604. To be sure, this later revelation closes the door on an atomic reading of Book 2 as a whole. However, the revelation scene beginning at line 604, a narration that shows the gods wreaking havoc around the city, is reminiscent of allegorical interpretations of the theomachia at the start of *Iliad* 20, a concept that Theagenes had famously interpreted as representing the conflict of physical qualities like wet and dry in nature (see Feeney 1991: 8–11). As with many portrayals of the gods in the *Aeneid*, a strict literal/allegorical dichotomy does not do justice to the complexity of the text.

> The ancient city falls, which had ruled for so many years. Great numbers of lifeless bodies are strewn all about through the streets, through homes, and through the revered thresholds of the gods.

In his commentary on Book 2, Nicholas Horsfall notes the relatively high frequency of Lucretian details in this passage, which is conspicuous for being composed almost entirely from Lucretian intertexts.[50] First, as Hardie argues in some detail, the description of Troy falling abruptly (*ruit*) after "having ruled through many years" (*multos dominata per annos*) evokes a Lucretian description of an atomic cosmos unraveling that, like Troy, dissolves in the course of a single day: *una dies dabit exitio, multosque per annos/ sustentata ruet moles et machina mundi* ("a single day will accomplish its destruction, and after having been sustained through many years, the great mass and machine of the world will fall," Lucr. 5.95–96).[51] While Hardie focuses on the element of gigantomachic exaggeration in this allusion (since Virgil conflates the devastation of Troy with the obliteration of an entire world), there is also a certain philosophical relevance to the comparison. As Aeneas' dire assessment makes plain, Troy is a city abandoned by its tutelary deities, and thus it serves as the functional equivalent of an Epicurean atomic cosmos, which also notably lacks divine organization or protection. Therefore, the allusion to cosmic dissolution in Lucretius figures Troy in this moment as an atomic cosmos writ small—a local example of the type of global chaos that results when the physical world loses its divine patronage and teleological guidance.

In addition to this cosmic model, the subsequent lines of the Virgilian passage also engage closely with the urban plague at the end of Book 6 of *de Rerum Natura*:[52]

> plurima perque vias sternuntur inertia passim
> corpora perque domos et religiosa deorum
> limina (*Aen.* 2.364–36).

> Great numbers of lifeless bodies are strewn all about through the streets, through homes, and through the revered thresholds of the gods.

[50] See Horsfall 2008: at the place.

[51] See Hardie 1986: 190 n.85. The phrasing in both passages is remarkably similar, with the verb *ruere* and *multos per annos* accompanied by a feminine passive participle.

[52] As Horsfall 2008 states in his commentary ad 2.365: "close reading of Lucr. interacts with the common narrative/tragic detail of the ineffectiveness of the right of sanctuary on such occasions." In noting the profusion of Lucretian details at this point of the narrative, Horsfall also comments that "Lucr. is much in V.'s mind hereabouts" (ad 2.363).

Virgil's image of bodies strewn about the streets and temples of Troy draws from a long and pitiful Lucretian description of those who died as a result of the plague that devastated Athens during the Peloponnesian War:

> multa siti prostrata viam per proque voluta
> corpora silanos ad aquarum strata iacebant
> interclusa anima nimia ab dulcedine aquarum,
> multaque per populi passim loca prompta viasque
> languida semanimo cum corpore membra videres
> horrida paedore et pannis cooperta perire
> corporis inluvie, pelli super ossibus una,
> ulceribus taetris prope iam sordeque sepulta.
> omnia denique sancta deum delubra replerat
> corporibus mors exanimis onerataque passim
> cuncta cadaveribus caelestum templa manebant,
> hospitibus loca quae complerant aedituentes. (Lucr. 6.1264–75)

> Many bodies twisted by thirst lay strewn throughout the streets and before fountains of water, their breath of life cut off by the excessive sweetness of the water. And you would see many in plain sight all about the public places and through the streets, lying with sluggish limbs and a half-dead body, caked with filth and covered with rags, dying from the foulness of their bodies. They had only skin on their bones, already nearly buried in foul ulcers and dirt. Finally, death filled all the sacred sanctuaries of the gods with lifeless bodies, and all the temples of the heavenly gods remained weighed down with corpses all about—places that the temple attendants had filled with guests.

Beyond the numerous similarities in vocabulary, which are themselves striking, Virgil's allusion taps into a powerful thematic link between the two passages: both describe dying cities that lack divine protection. Although this absence of divine beneficence is merely temporary in the case of Virgil's Trojans, the intertextual and thematic connections to the Lucretian plague portray the sack of the city as a kind of lapse into atomic conditions of haphazard destruction.

Collectively, the details culled from Lucretian descriptions of cosmic and societal collapse provide a warning about how the world of the *Aeneid* operates—or fails to operate—without divine governance. Furthermore, as

an interlude in Aeneas' narration that offers a wide-frame view of apocalyptic destruction, this otherwise short description has the important effect of framing the overall chaos of Troy's fall as having atomic characteristics. By allusively comparing Troy to both an atomic *mundus* and an atomic city in the throes of dissolution, Virgil presents atomism as the default philosophical setting of cosmological and social disorder, and as a wholly negative force that the Trojans must escape in order to survive.

The next existential atomic threat that the Trojans face takes place on Crete, in Book 3. Anchises, having misinterpreted Apollo's oracular instructions concerning the location of their future homeland, convinces the Trojans to found their new city on Crete. However, shortly after making landfall and beginning work on a settlement, the Trojans are struck by a debilitating illness:

> iamque fere sicco subductae litore puppes,
> conubiis arvisque novis operata iuventus,
> iura domosque dabam, subito cum tabida membris
> corrupto caeli tractu miserandaque venit
> arboribusque satisque lues et letifer annus.
> linquebant dulcis animas aut aegra trahebant
> corpora; tum sterilis exurere Sirius agros,
> arebant herbae et victum seges aegra negabat (*Aen*. 3.135–42).

> And now, the ships were just brought up onto the dry shore, the youth were busy with weddings and new fields, and I was assigning laws and homes, when suddenly from a corrupted tract of the sky came a wretched plague consuming limbs, trees, and crops—a deadly season. The Trojans were breathing their sweet final breaths, or dragging their weary bodies along, and Sirius dried up the barren fields; plants were parched and the exhausted crop refused its nourishment.

Of particular interest in this description is the airborne etiology of the disease, which engages simultaneously with mythological and natural-philosophical (what we might call "scientific") models of pestilence. On the one hand, the overarching Homeric framing of this episode provides a straightforward explanation for why the disease should originate in the sky: the Trojans have misunderstood Apollo's instructions and, just as in Book 1 of the *Iliad*, the god sends down a plague from above in order to register his displeasure until

the mistake is remedied.[53] Indeed, although Virgil does not initially identify the god as the source of the plague, Apollo says as much only a dozen or so lines later when, speaking through the Trojan Penates, he informs Aeneas of his mistake and directs him to sail for Italy (*Aen*. 3.154–71).

Within this mythological frame, however, Virgil's description of the plague closely resembles the Lucretian model of disease transmission outlined in the conclusion to Book 6 of *de Rerum Natura* (Lucr. 6.1090–1137). The affinities between the Cretan plague and Lucretius' atomic explanation for the plague at Athens become especially clear when examined alongside Virgil's other (more famous) "Lucretian" plague, which occurs at the end of Book 3 of the *Georgics* (3.478ff.).[54] Various commentaries on both the *Georgics* and the *Aeneid* point out that the Cretan plague and its agricultural counterpart in the *Georgics* both follow Lucretius in identifying corrupted air as the source of illness.[55] In a clear reference to Lucretius' "diseased air" (*morbidus aer*; Lucr. 6.1097, cf. 6.1090–1137), Virgil attributes the agricultural plague in the *Georgics* to a "sickness of the sky" (*morbo caeli*, *Geo*. 3.478), which he then echoes in the *Aeneid* by attributing the Cretan plague to a "corrupted section of the sky" (*corrupto caeli tractu*; *Aen*. 3.138). In addition, Nettleship argues that the end of the following line, *letifer annus* ("deadly season." *Aen*. 3.379), evokes the ending of a Lucretian line, *haec ratio quondam morborum et mortifer aestus*. ("[T]his was the cause of that plague, a deathly heat," Lucr. 6.1138), which Virgil had already famously alluded to in the *Georgics*: *Hic quondam morbo caeli miseranda coorta est/ tempestas totoque autumni incanduit aestu* ("here a wretched storm once arose from a sickness of the sky and grew strong in the full heat of late summer," *Geo*. 3.478–79).[56] Amidst this knotty cluster of lexical and theoretical details linking the Cretan plague in the *Aeneid* to Virgil's earlier Lucretian plague in the *Georgics* and to the original Lucretian plague in

[53] Cf. Serv. ad 3.138: *notandum sane Apolline offenso pestilentiam semper creari: quod etiam Homerus ostendit, cum eum armatum inducit sagittis: unde et Apollo dicitur secundum aliquos ἀπὸ τοῦ ἀπολλύειν* ("It must be noted that a plague always arises when Apollo has been offended. Homer makes this clear when he introduces him armed with arrows, and according to some, he get the name Apollo from the Greek *apo tou apolluein*, 'from destruction' ").

[54] For the layered allusion to both the Lucretian plague and the Virgilian one in the *Georgics*, see Horsfall 2006 ad 3.135–46.

[55] See Serv. ad *Aen*. 3.138: *hic est ordo pestilentiae, ut Lucretius docet* ("this is the order of the plague that Lucretius teaches"). In a later note on *Geo*. 3.478, Servius explicitly compares the plague in the *Georgics* with both Lucretius and the Cretan plague in *Aeneid* 3. Cf. comments by Thomas 1988 ad *Geo*. 3.478, 481, as well as Williams 1967 ad *Aen*. 3.137–39.

[56] See C-N ad *Aen*. 3.379 and Williams 1967 at the place. Williams ad 3.140–42 also sees a potential Lucretian connection in *linquebant dulcis animas* ("they were breathing their sweet final breaths"): "*anima* here has the sense of *vita*, and Virgil is typically making a variation on a more usual phrase such as Lucr. 5.989 *dulcia linquebant lamentis lumina vitae*."

de Rerum Natura, we can see a robust engagement with the idea of plague as a Lucretian—as well as atomic—phenomenon.[57]

So then what does it mean for the Cretan plague in Book 3 of the *Aeneid* to be, in a limited and local sense, atomic? Like the storm in Book 1 of the *Aeneid*, this episode occurs within a thoroughly mythological framework, but the details of the plague's transmission and its effects subtly hint at an atomic mechanism. Apollo's absence from the initial description, for instance, lends the scene a conspicuously rationalizing feel that is only later remythologized when the god speaks to Aeneas via the Penates. As with earlier episodes of atomic disruption, the plague portrays yet another obstacle to Trojan—and by extension, Roman—success in distinctly atomic terms. Even though this plague ultimately serves as a tool of divine guidance by forcing the Trojans to continue on their destined journey to Italy, its intertextual associations with the Lucretian plague reinforce the impression that atomism is opposed to the immediate health and power of the Trojan people. In fact, this impression grows stronger over the course of the poem, as further "outbreaks" of atomic disorder continue to occur at points when Aeneas ignores or delays Rome's divinely appointed fate.

2.3 ATOMIC INDECISION

In addition to being associated with episodes of violence and disease that actively harm the Trojans, atomism is also evoked at key moments of indecision when Aeneas contemplates abandoning his divine mission. In three episodes of personal and communal crisis—first, when Mercury compels Aeneas to leave Dido and the comforts of Carthage (4.285–86); second, when Iris induces the Trojan women to burn their ships on the coast of Sicily and Aeneas considers abandoning the quest for Latium (5.701–3); and third, when war breaks out and the cities of Latium unite against the Trojan interlopers (8.20–25)—Virgil describes Aeneas' indecision in distinctly atomic terms, modeling his troubled thoughts upon a formulaic phrase in Lucretius for the random, flitting motion of individual atoms and their larger compounds. While these descriptions also evoke a variety of other Greek and Latin models, the Lucretian passages offer the closest verbal parallels and

[57] Horsfall 2006 ad loc. notes further connections to Lucretius in *dulcis animas* (*Aen.* 3.140) as well as *aegra . . . corpora* (3.140–41).

serve, I argue, an important thematic function, connecting Aeneas' indecision to Epicurean cosmology in a way that emphasizes both its randomness and its incompatibility with Rome's imperial destiny.

The first of these episodes of atomic hesitation occurs in Book 4, after Mercury visits Aeneas in a dream urging him to depart from Carthage and to resume his voyage to Italy. Although the Trojan leader is awestruck and wishes to depart immediately, he vacillates at first, unsure of how to deal with Dido:

> heu quid agat? quo nunc reginam ambire furentem
> audeat adfatu? quae prima exordia sumat?
> atque animum nunc huc celerem nunc dividit illuc
> in partisque rapit varias perque omnia versat. (*Aen.* 4.283–86)

> Alas, what should he do? How should he now dare to solicit help from the furious queen? He splits his swift mind, now here, now there; snatches it in various directions and twists it through everything.

This memorable moment of split-minded indecision recalls a number of possible models. First, as virtually all commentators note, the "division" of Aeneas' mind evokes the Homeric phrase διάνδιχα μερμήριξεν ("his mind was split in two ways"), which is found three times in the *Iliad* (1.189, 8.167, and 13.455). In addition, certain scholars argue that a similar passage from the *Odyssey* provides a more precise model for the "now here, now there" expression in Virgil: ὣς ἐμοὶ δίχα θυμὸς ὀρώρεται ἔνθα καὶ ἔνθα ("thus my mind was stirred up here and there in two ways," *Od.* 19.524).[58] Last, Walter Moskalew notes that the line from the *Odyssey* may also be filtered through a related passage in Apollonius' *Argonautica* (3.755–60), which describes Medea's distracted mind with a similar ἔνθα καὶ ἔνθα ("here and there") phrase.[59] In the absence of other determinative factors, such as narrative

[58] See Moskalew 1982: 97 n.52, as well as Williams 1972 ad 5.701. Pease 1967 ad 4.285 also compares *Od.* 14.20–21: δαϊζόμενος κατὰ θυμόν/ διχθάδι ("his mind is divided in two"). The phrase ἔνθα καὶ ἔνθα ("here and there") is not in itself unusual in Homer, occurring 15 times in the *Iliad*, and 13 times in the Odyssey, in descriptions of sea travel (*Od.* 2.213), storms (5.327, 330), shiny surfaces (7.86, 95), the digging of a trench (10.516, 11.25), sleeplessness (20.24, 28), curling smoke (20.26), and the stretching of bows (21.246, 394, 400). Similarly, Apollonius uses the phrase frequently in a variety of contexts. There is also the phrase ἔνθ' ἢ ἔνθα ("here or there"), which occurs less frequently in Homer.

[59] See Moskalew 1982: 97 n.52, along with Nelis 2001: 331–35. Interestingly, although Dido offers a closer narrative parallel to Medea than Aeneas, Virgil shifts the description of mental confusion from the abandoned woman to the abandoning man. For more details on the function of this Apollonian model, see Moskalew 1982: 173–75.

context or close verbal parallels, any and all of these Greek antecedents may operate as signposts of the *Aeneid's* generic affiliation with Homeric and Apollonian epic through the trope of heroic indecision.

However, as is so often the case with Virgil's Homeric allusions, the general Greek idea of the divided mind is mediated through a more recent Latin model. In particular, Aeneas' indecision evokes a formulaic phrase from Lucretius that occurs in a description of dust motes darting through the sunlight, an image that is used as an analogy for the motion and collision of atoms:[60]

> multa videbis enim plagis ibi percita caecis
> commutare viam retroque repulsa reverti
> nunc huc nunc illuc in cunctas undique partis. (Lucr. 2.129–31)

> There (in the sunlight) you will see many specks stirred up by invisible blows changing their path and, having been driven back, they turn, now here, now there, everywhere in all directions.

If we compare the final line of this passage to the description of Aeneas' indecision, it is clear that Virgil has reduplicated the first half of Lucr. 2.131 within *Aen*. 4.285, while glossing the second half of the Lucretian phrase in the following line:

> *animum nunc huc celerem nunc dividit illuc* (*Aen*. 4.285) < *nunc huc nunc illuc*. (Lucr. 2.131a)
> *in partisque rapit varias perque omnia* (*Aen*. 4.286) < *in cunctas undique partis*. (Lucr. 2.131b)

Furthermore, the atomic resonance of this borrowing is reinforced by the fact the two Lucretian hemistichs occur separately in various descriptions of atomic phenomena throughout *de Rerum Natura*. The first half of the expression, *nunc huc nunc illuc* ("now here, now there"), occurs with minor variations three other times in Lucretius, always emphasizing the haphazard motion of individual atoms or larger atomic clusters, while elsewhere the Epicurean poet regularly highlights the random, ricocheting quality of

[60] Moskalew 1982: 97 suggests that the Lucretian intertext was particularly influential for *Aen*. 8.19–20.

atomic collisions with the phrase *in cunctas undique partis* ("everywhere in all directions").[61] While the appearance of either one of these phrases in isolation in the *Aeneid* might reasonably be labeled "incidental," the fact that they occur together, with identical or similar wording and in the same order as the Lucretian description of dust motes at 2.131, strongly suggests a direct recall of Lucretius.[62]

However, the Lucretian phrase *nunc huc nunc illuc* is also similar to a common Latin expression for haphazard or hurried movement attested in the works of other late-Republican writers, and so it is necessary to address this idiomatic background briefly in order to clarify the relationship of Aeneas' confusion to its atomic model in Lucretius. As early as Ennius, there is a tendency in Latin literature to express the idea of confused or arbitrary motion through the stylized pairing of correlative directional adverbs, as seen in the tragedy *Iphigenia*:[63]

> animus nescit quid velit.
> hoc idem est: em neque domi nunc nos nec militiae sumus.
> imus *huc, hinc illuc*; cum *illuc* ventum est, ire *illinc* lubet.
> *incerte errat animus*, praeter propter vitam vivitur.
>
> The mind doesn't know what it wants. This is the same: you see, now we are neither at home nor on campaign. We go *here, then from here to there*; when we've arrived *there*, we leave *from there* as we please. *The mind wanders uncertainly*; one lives, but only more or less.

Because of the sparse evidence for early Latin literature, it is unclear whether this use of paired adverbs is an adaptation of the Greek phrase ἔνθα καὶ ἔνθα ("here and there"), or whether it is native to Latin, but by Lucretius' time the usage appears to have coalesced into a distinct expression for arbitrary movement: *modo huc modo illuc* ("now here, now there"). For instance, the phrase is attested six times in Catullus and Cicero, and both authors use it to express

[61] For the expression *nunc huc nunc illuc*, cf. *nunc hic nunc illic* ("now here, now there") at Lucr. 2.575 (atoms), as well as *nunc hinc nunc illinc* ("now from here, now from there") at 2.214 (lightning) and at 6.199 (thunder and wind). For *in cunctas undique partis* and its variants, cf. Lucr. 1.1007; 2.93, 2.131, 2.1048, 2.1134; 4.226, 4.240, 4.603, 4.725; 6.648, 6.932, 6.1017. See Fowler 2002: 175 (ad 2.93), who identifies the Lucretian formula as a translation of πανταχοῖ or πανταχόσε ("every which way").

[62] As Pease 1967 ad 4.486 notes, there is also a faint echo of Lucretius in the line ending *omnia versat*; cf. Lucr. 2.882, along with *Ecl.* 9.5.

[63] See Jocelyn 1967: fr. xcix (=Gel. *NA* 19.10.12). Jocelyn 1967: 335 identifies the soldiers here as Achilles' Myrmidons, known for their proverbial restlessness; cf. *Il.* 2.778–79.

the notion of unpredictable, confused motion, or to criticize others for being too flighty, too busy, too erratic, or too indecisive.[64] We may reasonably assume, therefore, that because of its fixed lexical form and consistent meaning, even in a variety of different contexts, *modo huc modo illuc* was a regular idiom in late-Republican literature.

On the other hand, *nunc huc nunc illuc* is attested nowhere outside of Lucretius prior to *Aeneid* 4, and appears to be the innovation of the Epicurean poet.[65] In terms of its connotations, the *nunc huc* ("now here") phrase in Lucretius also differs from earlier uses of *modo huc* by presenting a neutral interpretation of random motion as an essential and constructive feature of atomic nature, rather than as a symptom of confusion or disorder. Therefore, while the switch from *modo* to *nunc* does not appreciably change the meaning of the expression, it has the effect of distinguishing itself as a specifically Lucretian variation on an otherwise common phrase.[66] Furthermore, Lucretius uses the phrase exclusively in descriptions of atoms or atomic phenomena, as a sort of tagline for the fortuitous collisions that underpin Epicurean physics. Assuming a level of philosophical sensitivity that is well attested in many of Virgil's other Lucretian intertexts, this use gives the *nunc huc* phrase in the *Aeneid* not only a Lucretian character (in the literary or poetic sense), but an atomic one as well.[67]

Let us now examine the second half of the Lucretian intertext, *in cunctas undique partis* ("everywhere in all directions," Lucr. 2.131b), which Virgil paraphrases at *Aen*. 4.286: *in partisque . . . varias perque omnia* ("in various

[64] See Catul. 3.9 (describing the flitting motion of a sparrow) and 15.7 (the daily hustle of Romans hurrying to and fro in the streets); cf. Cic. *Parad*. 1.14 and *Tim*. 47.18–48.8. Elsewhere, Cicero criticizes the lax standards that govern divination among the Stoics, who make "now one conjecture, now another" (*coniecturam modo huc, modo illuc ducentium*, *Div.* 2.70.145), while in a letter to Atticus he playfully mocks the intellectual volatility of the Platonic Academy, doctrinally shifting "now here now there" (*Att*. 13.25.3).

[65] See Fowler 2002: 207 (ad 2.131), who quotes Wölfflin 1885: 242: "*Nunc . . . nunc . . .* hat Lukrez in die poetische Sprache eingeführt." ("Lucretius introduced *nunc . . . nunc . . .* into the language of poetry.")

[66] The post-Virgilian reception of this phrase sheds partial light on the Lucretian identity of *nunc huc nunc illuc*. See, e.g., the description of a sea storm at Livy 28.6.10, in which the historian pairs the *nunc huc nunc illuc* with another Virgilian image adopted from Lucretius, the simile of the mountain stream (*Aen*. 12.521–26 < Lucr. 1.277–89). Although the exact date of book 28 of Livy is uncertain, it is plausible that it was published near or shortly after Virgil's death. For likely dates of Books 1–15, from which I have extrapolated, see Luce 1965: 238.

[67] By contrast, when Virgil uses a different variation of the "now here, now there" phrase with the adverb *iam*, instead of *nunc*, he does so without implying any negative sense of atomic disorder. This use is evident in the playful description of Ascanius in Book 4, when the Trojans and Carthaginians go on a hunt in the countryside: *at puer Ascanius mediis in vallibus acri/ gaudet equo iamque hos cursu, iam praeterit illos* . . . ("But the boy Ascanius rejoices in his fierce horse, galloping past now these companions, now those." *Aen*. 4.156–57).

directions . . . and through everything"). First, it is important to acknowledge that *in partem* ("in [some] direction") is a common expression for indicating directionality, and is therefore unexceptional in isolation. Nevertheless, there are a number of factors that support an interpretation of the Virgilian line as engaging meaningfully with the Lucretian model, rather than simply rehashing a general idiom. First of all, as previously mentioned, Virgil's *in partis* phrase does not occur in isolation, but as part of a description of mental indecision that closely follows both the wording and the order of Lucretius' description of dust motes clashing in the sunlight. The strong intertextuality of the *nunc huc* half of the expression establishes a Lucretian tone for the description as a whole, and should therefore make us more attentive to further Lucretian engagement, even in the absence of exact verbal borrowing.

Second, the wording of Virgil's paraphrase for "everywhere in all directions" is itself peculiar, replicating a distinct feature of the Lucretian hemistich that is uncommon in other occurrences of the phrase outside of Lucretius. In *de Rerum Natura*, the addition of the adverb *undique* (literally "on all sides") to *in cunctas partis* ("in all directions") is essentially pleonastic, piling on an additional term for multidirectionality that produces a rhetorical effect without altering the fundamental meaning of the sentence. While Virgil substitutes the adjective *varias* ("various") for *cunctas* ("all"), the addition of *per omnia* ("through everything") produces a similar effect to *undique* ("on all sides") in the Lucretian original, expressing the idea of motion in all directions by joining two interchangeable phrases. Even without replicating the Lucretian phrase word for word, the Virgilian line expresses the same meaning in a similar fashion.[68]

Moreover, Virgil's use of *varias* in place of *cunctas* is not without potential philosophical (and polemical) significance. Beyond the neutral associations of its familiar English cognate, "various," the Latin adjective *varius* possesses additional moral connotations of fickleness and inconstancy when discussing character.[69] By introducing a term that denotes variety of direction while also potentially connoting inconstancy, Virgil again presents Lucretian atomic

[68] The same cannot be said of Dido's indecision at *Aen*. 4.630, which varies the phrasing: *haec ait, et partis animum versabat in omnis* ("Thus she spoke, and she twisted her mind in every direction"). I would argue that this variety supports my choice to interpret the *nunc huc* phrase as engaging allegorically with Lucretius, while not doing so for other scenes in which mental conflict is conveyed through less allusively marked versions of the phrase.

[69] *OLD* s.v. *varius* (6). Compare Mercury's misogynistic criticism later in Book 4: *varium et mutabile semper/ femina* ("A woman is always a fickle and changeable thing," *Aen*. 4.569–70).

imagery in a distinctly negative light. Along with the overall context of the passage, which appropriates atomic imagery to describe an instance of patently undesirable hesitation on Aeneas' part, this tendentious alteration to the Lucretian phrasing mirrors Cicero's practice of associating atomism with negative moral and political traits. In effect, Virgil takes an atomic idea of motion in which randomness is value neutral, and makes it injurious when applied to Aeneas' mental process.

Now that we have investigated the intertextual antecedents for Aeneas' split mind and documented its engagement with a Lucretian description of atomic motion, it remains to explain how this relatively small detail functions within a larger allegorical context in the *Aeneid*. By using the randomness of atomic motion to describe the instability and indecision of Aeneas' mind as he agonizes over how to deal with Dido, Virgil continues the pattern established in the storm at the beginning of Book 1, whereby atomism and atomic imagery are set in opposition to Roman progress and cosmic order. Furthermore, this moment of atomic indecision occurs at a thematically important point in the narrative: as Mercury makes clear in his dream warning to Aeneas, the decision between staying with Dido or following divine fate is a choice between personal pleasure (*otia*, 2.271) and national power (*regnum Italiae Romanaque tellus*, 2.275). As we will see, this pattern repeats itself two more times in the poem, each at crucial moments when Aeneas wavers in his determination to follow divine orders and continue on his mission to settle the Trojans in Latium.

The second of these episodes occurs in Book 5 on the coast of Sicily after Iris, at Juno's behest, provokes the Trojan women into burning their own ships. Despite the timely intervention of Jupiter, who responds to Aeneas' prayer by sending rain to put out the fires, all but four of the ships are lost. In a moment of personal crisis even more severe than the last, Aeneas considers abandoning his divine mission entirely and simply staying in Sicily:

> At pater Aeneas casu concussus acerbo
> nunc huc ingentis, nunc illuc pectore curas
> mutabat versans, Siculisne resideret arvis
> oblitus fatorum, Italasne capesseret oras. (*Aen.* 5.700–3)

> But father Aeneas, struck by this bitter event, was revolving great cares in his chest, turning them now here, now there; he considered whether to stay in the Sicilian lands, forgetting the fates, or to lay hold of the Italian shores.

As with the earlier moment of indecision concerning Dido, Virgil repeats the Lucretian phrase for random atomic motion, *nunc huc nunc illuc* ("now here, now there"), again slightly altering it by the placement of an intervening word. Although this passage lacks the additional reference to directional *partis* present at *Aen*. 4.286, the dichotomy of choices offered here to Aeneas makes the opposition between atom-like indecision and the alternative of a Roman future even clearer than before: Aeneas may either accept divine fate and continue on to Italy, or forget that destiny and yield to an atomic despair that embodies the opposite of divine cosmological structure and Roman political order.[70]

The third such episode of indecision occurs at the beginning of Book 8, and it is in this scene that Virgil engages most closely with the specifically atomic nature of his Lucretian intertext. When war first breaks out between the Trojans and Italians in Latium, Aeneas is again temporarily overcome with anxiety and indecision. In this description of Aeneas' hesitation, Virgil repeats two lines from the first "divided-mind" scene (*Aen*. 8.20–21=4.285–86), while elaborating upon the idea of a scattered mind through the use of a colorful simile:

> Talia per Latium. quae Laomedontius heros
> cuncta videns magno curarum fluctuat aestu,
> atque animum nunc huc celerem nunc dividit illuc
> in partisque rapit varias perque omnia versat,
> sicut aquae tremulum labris ubi lumen aenis
> sole repercussum aut radiantis imagine lunae
> omnia pervolitat late loca, iamque sub auras
> erigitur summique ferit laquearia tecti. (*Aen.* 8.18–25)

> Such were the things happening throughout Latium. And seeing all of this Aeneas, the heroic descendant of Laomedon, wavers under a great swell of anxieties; he splits his swift mind, now here, now there, snatches it into various directions and twists it through everything, like when light shimmers on brazen vessels of water, reflected from the sun or the

[70] The phrase *casu consussus* ("struck by this event," *Aen*. 5.700) may also gesture toward the language of atomic physics, faintly echoing the Lucretian use of *concutere* and its passive participle to describe atomic impacts (e.g., Lucr. 2.949, 3.392), along with violent meteorological phenomena (e.g., 5.550, 6.121). In their commentary on a similar use of *concussus* at line 5.869, Fratantuono and Smith call the verb "poetic and old," while noting that Virgil also uses it in descriptions of nature and elemental forces elsewhere in the *Aeneid* and the *Georgics* (2015: 727).

> image of the beaming moon, and flits about far and wide through every place, and then it is raised up through the air and strikes the panels of the ceiling above.

Although there are a number of details that suggest Lucretian influence in the first half of this passage, such as the *nunc huc* phrasing previously discussed, most scholarly attention has focused on the simile in the second half.[71] As many commentators have noted, this simile alludes to a famous description in Apollonius' *Argonautica*, where the poet compares Medea's lovesick indecision to shimmering light bouncing off reflective surfaces:[72]

> πυκνὰ δέ οἱ κραδίη στηθέων ἔντοσθεν ἔθυιεν,
> ἠελίου ὥς τίς τε δόμοις ἐνιπάλλεται αἴγλη
> ὕδατος ἐξανιοῦσα, τὸ δὴ νέον ἠὲ λέβητι
> ἠέ που ἐν γαυλῷ κέχυται: ἡ δ᾽ ἔνθα καὶ ἔνθα
> ὠκείῃ στροφάλιγγι τινάσσεται ἀίσσουσα:
> ὣς δὲ καὶ ἐν στήθεσσι κέαρ ἐλελίζετο κούρης. (*Argon.* 3.755–60)

> Medea's heart seethed continuously within her chest. As a beam of sunlight glimmers throughout the house, bouncing off water freshly poured in a kettle, or perhaps a bucket; and it shakes and darts, now here, now there, on the swift whirl of water—just so did the maiden's heart twist in her chest.

Because of close similarities of phrasing and context, this passage offers an obvious and attractive model for Virgil's description of Aeneas.[73] Yet an interpretive dilemma remains: why should Virgil wish to compare Aeneas to Medea at this crucial moment in the narrative, when the Trojans have ostensibly left behind Odyssean love and wandering of the first half of the poem for the "grander

[71] In addition to *nunc huc,* there are other Lucretian notes. Moskalew 1982: 174 connects *fluctuat* ("wavers") at 8.19 to Lucr. 6.33–34: *et genus humanum frustra plerumque probavit/ volvere curarum tristis in pectore fluctus* ("And he proved that, in general, the human race revolves these sad waves of anxiety in its chest in vain"), and to Lucr. 6.74, adducing Catul. 64.62 as a further point of comparison.

[72] See especially the discussion at Nelis 2001: 331–35 and Clausen 1987: 62–64. Clausen also notes Lucretian touches, such as Virgil's use of *pervolitare* ("to flit about") and *alituum* ("winged birds") later in line 27 (1987: 150 n. 2).

[73] Especially the Homeric phrase ἔνθα καὶ ἔνθα ("here and there," 3.758), which seems to function in Greek epic as an idiomatic equivalent to the Latin phrase *modo huc modo illuc* ("now here, now there"). Although Nelis 2001: 334 sees Virgil's *sub auras* ("through the air," 8.24) as an elaboration upon Apollonius' vague ἔνθα καὶ ἔνθα, he omits any mention of *nunc huc nunc illuc* (8.20) as an additional parallel.

subjects" (*maiora*) of cultural foundation and warfare in Books 7 through 12? One solution, suggested by Moskalew, is to see Aeneas' indecision at 8.18ff as partaking in a web of associations that includes the earlier moment of indecision concerning Dido at 4.285–86. According to this view, there is nothing inherently "Medean" about Aeneas at the beginning of Book 8, but the association of Aeneas' indecision with Dido in Book 4 causes Virgil to think of a similar distraught heroine later in the poem when he repeats the phrase.[74]

However, Moskalew also notes the presence of Lucretian material within this web of association, and I believe that careful attention to this fact may provide us with a more satisfactory account of the simile, as well as the passage as a whole. In addition to the description of dust motes at Lucr. 2.131 flying "now here, now there," which was noted by Moskalew and previously discussed, there is a separate Lucretian passage that might have served as a supplementary model for Virgil's Apollonian light simile.[75] In Book 4 of *de Rerum Natura*, Lucretius argues that atomic images or effluences travel at near-instantaneous speeds by appealing to the example of light, which moves and bounces off surfaces with incredible swiftness:[76]

> Hoc etiam in primis specimen verum esse videtur,
> quam celeri motu rerum simulacra ferantur,
> quod simul ac primum sub diu splendor aquai
> ponitur, extemplo caelo stellante serena
> sidera respondent in aqua radiantia mundi. (Lucr. 4.209–13)
>
> The following seems to be a true example of this tendency: how the images of things are borne along with a swift motion, so that as soon as the brightness of water appears, if the sky is starry, then suddenly the serene stars of the cosmos reflect back, shining in the water.

If we compare this passage with Lucretius' description of dust motes at 2.129–31 and with Apollonius' scattered-light simile at *Argon*. 3.755–60, it is clear that the common element uniting these otherwise disparate sources is an interest in the reflective qualities of light (or in the case of dust motes, the

[74] See Moskalew 1982: 175. Cf. similar comments at Nelis 2001: 334: "The distribution of the Apollonian model creates a network of associations within the *Aeneid* linking Dido, Turnus and Aeneas."

[75] Moskalew 1982: 97 n. 52 describes Lucr. 129–131 as "particularly influential" for *Aen*. 8.20–21.

[76] The parallel between this passage and the Virgilian description is noted by C-N at the place.

reflective qualities of colliding particles illuminated by light). And, in fact, one may interpret Virgil's simile as filtering the Apollonian simile through Lucretius' description of starlight reflected upon water.[77]

This unifying thread should, therefore, make us more attentive to the original context of the *nunc huc nunc illuc* Lucretian intertext as well—even more so than when it occurs in Books 4 and 5, because of the addition of the simile. With this heightened sensitivity to philosophical context, we will see that Virgil's allusive manipulation engages specifically with the atomic lineage of the dust-mote analogy, going all the way back to the early atomists. As previously discussed, the *nunc huc* phrase originated in a description of dust motes floating through a sunbeam, an image that Lucretius uses as an analogy for atomic collisions. Yet the Epicurean poet seems to have borrowed the dust-mote example from one of the founders of atomism, Democritus.[78] As Aristotle explains in *de Anima*, Democritus used the analogy of dust motes not simply for atoms in general, as Lucretius does, but for the specific type of atoms that make up the soul:[79]

> ὅθεν Δημόκριτος μὲν πῦρ τι καὶ θερμόν φησιν αὐτὴν εἶναι· ἀπείρων γὰρ ὄντων σχημάτων καὶ ἀτόμων τὰ σφαιροειδῆ πῦρ καὶ ψυχὴν λέγει (οἷον ἐν τῷ ἀέρι τὰ καλούμενα ξύσματα, ἃ φαίνεται ἐν ταῖς διὰ τῶν θυρίδων ἀκτῖσιν), ὧν τὴν μὲν πανσπερμίαν στοιχεῖα λέγει τῆς ὅλης φύσεως (ὁμοίως δὲ καὶ Λεύκιππος), τούτων δὲ τὰ σφαιροειδῆ ψυχήν, διὰ τὸ μάλιστα διὰ παντὸς δύνασθαι διαδύνειν τοὺς τοιούτους ῥυσμοὺς καὶ κινεῖν τὰ λοιπά, κινούμενα καὶ αὐτά, ὑπολαμβάνοντες τὴν ψυχὴν εἶναι τὸ παρέχον τοῖς ζῴοις τὴν κίνησιν. (Arist. *de An.* 1.403b31–404a9)
>
> This is why Democritus says it is fire, or hot substance; of the infinite number of figures or atoms, those that are spherical (like the motes seen in rays coming through windows) are fire or soul, and the mixture of all the seeds constitutes the elements of the whole of nature (here Leucippus agrees with him); and the spherical shapes are soul, because such shapes are most able to penetrate everywhere and set other things in motion, being in motion themselves. These thinkers think soul is what gives animals their movement.

[77] In a similar vein, Frank 1919: 104 suggests that the prefix *re-* in the phrase *sole repercussum* ("reflected from the sun") at *Aen.* 8.23 gestures toward the Epicurean theory of vision.

[78] For a summary of all extant evidence concerning Democritus' use of the dust-mote example, see Fowler 2002: 193–5.

[79] Translation taken from Ross (1961). Cf. Lactantius' description at *de Ira Dei* 10.9.

Looking back at Aeneas' indecision at the start of Book 8, we can see that Virgil has subtly corrected his Lucretian source material. By using distinctive language from the Lucretian dust-mote passage to describe Aeneas' conflicted *mind*, Virgil restores the original spiritual (i.e., mental) emphasis of the Democritean example, which had dropped out of the intervening Lucretian passage. Furthermore, this interpretation provides an answer to the question of how readers are supposed to interpret the relationship between the Apollonian simile and the scene as a whole. The reference to Apollonius' simile does not occur in isolation, but as an intermediary between Lucretius and Democritus. As previously demonstrated in the discussion of Aeolus' cave and the storm in Book 1, this intermixing of epic and philosophical (or "scientific") intertexts is a characteristic feature of Virgil's allusive engagement with Lucretius, and occurs throughout the *Aeneid* at important points in the narrative.

2.4 CONCLUSION

To conclude the discussion of atomic indecision, I would argue that Virgil's attentiveness to the philosophical pedigree of the Lucretian intertext at *Aen*. 8.20–21 signifies more than just a clever annotating of literary sources. By hinting at the Democritean origins of the dust-mote analogy, Virgil evokes the Lucretian imagery of haphazard motion as an implicitly atomic phenomenon. As with Aeneas' two previous moments of indecision (*Aen*. 4.283–86; 5.700–703), this evocation has the effect of portraying indecision and doubt as fundamentally atomic—perhaps not literally, but certainly in an allegorical or metaphorical sense. In this way, atomism acts as an obstacle that threatens to block Aeneas and the Trojans from obeying the divine hierarchy and founding their new settlement in Latium. The narrative context of all three moments of atomic indecision for Aeneas suggests that atomism, like the Italian rebels led by Turnus who swarm the countryside at the beginning of Book 8, is a hostile force that must be overcome to restore political and cosmological order. In the next chapter, I will examine the other side of this equation, showing how Virgil associates prominent non-Trojans with disorderly atomism as they repeatedly—though ultimately unsuccessfully—attempt to prevent Aeneas from settling in Latium.

3

Non-Trojans under the Influence of Atomism (Epic Losers)

> οἱ δὲ τὰς ἀτρέπτους καὶ ἀσυμπαθεῖς ἀτόμους εἰς τὸ αὐτὸ συνελαύνοντες ἐξ αὐτῶν μὲν οὐδέν, αὐτῶν δὲ πολλὰς ποιοῦσι καὶ συνεχεῖς πληγάς. ἡ γὰρ περιπλοκὴ κωλύουσα τὴν διάλυσιν μᾶλλον ἐπιτείνει τὴν σύγκρουσιν, ὥστε μηδὲ μῖξιν εἶναι μηδὲ κόλλησιν ἀλλὰ *ταραχὴν* καὶ *μάχην* κατ᾽ αὐτοὺς τὴν λεγομένην γένεσιν.
>
> —Plutarch, *Adversus Coloten* 1112b1–7

> Those who force together immutable and unresponsive atoms make nothing out of them, except for a great deal of continual blows. For the interlacing that supposedly retards their dissolution instead increases the clashing, so that what they call "coming-to-be" is not a mixing or binding, but *disorder* and *conflict*.
>
> —Plutarch, *Against Colotes*

Shifting from the last chapter, which examined scenes in which Aeneas and the Trojans encounter atomism as an obstacle to divine order and Roman teleology, I now turn to atomic moments in the characterization of the poem's non-Trojan antagonists. Here I argue that Virgil uses Lucretian intertexts to associate the failures and deaths of prominent non-Trojans with Epicurean atomism. The atomic characterization of these various non-Trojan figures makes their struggles part of the broader allegorical conflict between teleological visions of cosmological authority in the *Aeneid* (variously presented as Homeric, Augustan, Stoic, etc.) and non-teleological cosmology, represented in its natural-philosophical capacity by Epicurean atomism. By presenting these non-Trojan deaths and failures as atomic in some sense, Virgil associates their personal defeats with the poem's consistent rejection of atomic cosmology—an allegorical struggle that culminates in Turnus' death at the end of Book 12.

It is important to note from the outset that I will not be arguing that any Carthaginian or Italian characters are themselves adherents of Epicureanism.[1]

[1] Cf. the note of caution at Dyson 1996: 204: "That is not to say that Dido *is* an Epicurean, but rather that her shifting relationship to Epicureanism is an important aspect of her character."

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Rather, the association of these characters with certain features of atomism casts them as symbolic representatives of a stereotyped atomic worldview, the non-teleological materialism of which is consistently set in opposition to the political, moral, and cosmological order of the Trojans and their gods. This chapter will begin by reviewing Epicurean interpretations of Dido's character, focusing upon atomic details in the description of her death. While my discussion of Dido's death scene largely summarizes an existing scholarly consensus without advancing any new interpretations, I adopt key themes from that discussion in order to offer a fresh allegorical interpretation of later episodes of Italian frustration or death in Book 10—especially those of Turnus and Mezentius. I conclude by arguing that the atomistic failures of Dido, Turnus, and Mezentius all conform to a larger allegorical pattern foreshadowing the rejection of atomism in the climactic final scene of the poem.

3.1 ATOMISTIC DIDO

Among the various philosophical readings advanced by Virgilian critics, by far the most popular and enduring allegorical interpretation of the *Aeneid* has been pro-Stoic. According to this tradition, which sees the poem as tacitly confirming Stoic ethics and cosmology, Aeneas embodies the exemplary Stoic sage navigating a world of divine providence.[2] Many scholars have also perceived as a corollary to this interpretation moments in the narrative when Aeneas' allegorical Stoicism comes into conflict with Epicureanism, represented by certain antagonistic, non-Trojan characters. While such interpretations are by no means new, scholarship from 1994 onward has done an especially thorough job of documenting Virgil's characterization of Dido as an allegorical Epicurean whose lifestyle and ethics offer a foil to the *pietas* and political virtue of Aeneas.[3] These studies, particularly those of Dyson (1996) and Gordon (2012, 1998), identify a number of Epicurean details in the *Aeneid* that engage with philosophical doctrines attested in the fragments of Epicurus, in Philodemus' ethical treatises, and in the Hellenistic allegorizing tradition of interpreting

[2] The idea of Aeneas as a Stoic has an extensive pedigree; see Dyson 1996: 204 n. 5, as well as Dyson 1997: 450 n. 3 and Erler 1992: 105 n. 11.

[3] See Gordon 2012: 60–71; Adler 2003: 9ff.; Dyson 1996: 204–5; and Lyne 1994: 193–96. For a detailed bibliography of earlier claims about Dido's Epicureanism, see Pease 1967: 36 n. 285.

Homer's Phaeacians as proto-Epicureans. Yet in terms of identifiable verbal echoes, Lucretius' *de Rerum Natura* remains the most important source for Dido's Epicureanism.[4]

In keeping with the general trend in recent decades of scholarship on Lucretian intertextuality in Virgil, most studies of Dido's allegorical Epicureanism adhere to the interpretive framework of polemical allusion (whether consciously or implicitly) as a way to explain Virgil's often-hostile reception of Lucretian philosophy. One of the clearest articulations of this position is offered by Julia Dyson Hejduk (previously Julia Dyson), who summarizes the implications of this stance for the poem as a whole:

> In the *Aeneid*, *religio* wins. The Dido episode belongs to a larger pattern in which Virgil employs Lucretian language and imagery to contradict Lucretian doctrine: the words of the queen herself, of the narrator, and of other characters continually remind us of the Epicurean ideal even as they show it to be unattainable. I shall argue that Virgil portrays Dido's fall partly as a clash between Epicureanism and the supernatural machinery of the Aeneid. (Dyson 1996: 204)

As with Farrington's polemical allusion and Hardie's remythologization, Hejduk views the contrast between Virgil's widespread adoption of Lucretian language and his corresponding rejection of Lucretian ideology as an essential feature of the *Aeneid*'s allusive program. However, certain modern works on Dido's Epicureanism (including Hejduk's) differ by focusing not only on instances of inverted or displaced Epicureanism—such as when Virgil uses Lucretian verbiage to describe distinctly un-Epicurean moments of divine intervention in the affairs of mortals—but on moments in which the poet presents this allegorical Epicureanism *without* inversion, albeit tendentiously so, in order to show its undesirability, its impracticability, or both. In this latter style of intertextual engagement, Virgil's Lucretian language retains its original Epicurean connotations, but does so in a way that disparages the philosophy of the source text. As Hejduk and Gordon have amply demonstrated, this approach is still quite polemical even without the sort of inversion and displacement emphasized by Hardie, since it relies upon

[4] For further discussion of non-Lucretian sources for Epicureanism in the *Aeneid* (not just Dido's), see Gordon 2012: 38–60 and Erler 1992: 106ff.

an unflattering characterization of Epicurean philosophy culled largely from the stereotypes of its detractors.[5]

While existing treatments of Dido's allegorical Epicureanism skew heavily toward consideration of Epicurean ethics, scholars have also identified important intertextual moments in Virgil's characterization of Dido and the Carthaginians that specifically evoke atomic physics. One such moment occurs in the final lines of Book 4, where Virgil's description of Dido's dissipating soul engages with the Epicurean explanation of death as a wholly material phenomenon. As Hejduk notes, Dido's sister Anna first hints at a materialist understanding of death near the beginning of the book, when she dismisses the notion that Dido's dead husband would object to her attraction to Aeneas: *id cinerem aut manis credis curare sepultos?* ("Do you think that ashes or buried spirits are concerned with this?" *Aen*. 4.34).[6] However, as Hejduk rightly points out, the appearance of Dido's spirit later on in the underworld in Book 6 ultimately disproves any literal notion of the soul's mortality as an enduring feature of the poetic world of the *Aeneid*.[7]

Nevertheless, as I have attempted to emphasize in my discussion of other atomic moments in the poem, Virgil sometimes imports atomism into explicitly supernatural or mythological settings to operate as a sort of excluded alternative, allowing atomism to exist briefly at the local level without successfully overturning the poem's divine machinery. In scenes involving the Trojans, these moments function largely as challenges that must be overcome, but in Dido's case, these atomic details conflate her self-destruction with the eventual failure of non-teleological atomic physics as a model for Roman culture. Indeed, this is the interpretation of Dido's Epicureanism endorsed by Oliver Lyne and Hejduk, who both draw attention to Lucretian intertexts at the moment of Dido's death:[8]

> sic ait et dextra crinem secat, omnis et una
> dilapsus <u>calor</u> atque in <u>ventos</u> vita recessit. (Aen. 4.704–5)

[5] See Gordon 2012: 60–68, 1998: 189, 199, 203; Dyson 1996: 207–8; and Feeney 1991: 172–73. Despite allowing for the limited presence of Epicureanism in the text as what Dyson calls an *exemplum malum*, i.e., a "negative model" (1996: 204), these authors still devote significant attention to further instances of philosophical inversion in Virgil's Lucretian borrowings. See, e.g., Dyson (1997).

[6] See Serv. at the place: *dicit autem secundum Epicureos, qui animam cum corpore dicunt perire* ("He says this in agreement with the Epicureans, who state that the soul perishes with the body").

[7] See Dyson 1996: 215: "The questions of both Anna and Iarbas point up the Epicurean position in a way that demonstrates its falsity," along with 219: "The epilogue (6.459–76) leaves no doubt where Dido's spirit has gone. Her resentful Shade undermines her Epicureanism as clearly as Aeneas' fiery wrath (12.946–47) undermines his Stoicism."

[8] See Lyne 1994: 195 and Dyson 1996: 218.

> Thus Iris spoke, and with her right hand she cuts the lock. At the same time, Dido's warmth slipped away and her life receded into the winds.

On one level, this departure of the soul can be compared with the Homeric notion of the soul physically leaving the body to live on in the underworld. Yet, as both scholars note, the dissipation of Dido's bodily heat and life force *back* (*recessit*) into the winds also evokes a Lucretian model of death that stresses the importance of atomic heat and wind in both the preservation and loss of life:[9]

> noscere ut hinc possis non aequas omnia partis
> corpora habere neque ex aequo fulcire salutem,
> sed magis haec, venti quae sunt calidique vaporis
> semina, curare in membris ut vita moretur.
> est igitur calor ac ventus vitalis in ipso
> corpore qui nobis moribundos deserit artus. (Lucr. 3.124–29)

> From this you may be able to understand that not all atoms have an equal part [in sustaining life], nor do they support health equally. Rather, the atoms that are the seeds of wind and burning heat ensure that life lingers in the limbs. There is, therefore, heat and life-sustaining wind in the body itself, elements that desert our limbs when we are dying.

Lyne points out that, beyond simply evoking atomic descriptions of the soul in his description of Dido's death, Virgil also passes up an opportunity to "correct" a moment of demythologization in his Lucretian source text.[10] When Lucretius describes the dissipation of the soul, he alludes to the death of Patroclus, imagined as a wailing spirit fleeing to the underworld: ψυχὴ δὲ κατὰ χθονὸς ἠΰτε καπνὸς/ ὤχετο τετριγυῖα ("his soul went down into the earth, like smoke, with a hissing cry." *Il.* 23.100–1). However, although Lucretius repeats the smoke simile, he excises the mournful cry, indicating the absence of the disembodied spirit, which, in keeping with atomic principles, has fully dissolved back into its component atoms:

[9] Cf. discussion of this passage at Dyson 1996: 218–19. Lyne 1994: 195 also draws attention to Lucr. 3.214–15, 3.400–401, and 3.455–56.

[10] See Lyne 1994: 195–96. Although Lyne does not use Hardie's language of "demythologizing" and "remythologizing," he articulates the same concept.

> ergo dissolui quoque convenit omnem animai
> naturam, ceu fumus, in altas aeris auras. (Lucr. 3.455–56)
>
> Therefore it is fitting that the entire nature of the spirit be dissolved as well, like smoke, into the lofty breezes of the air.

Virgil's decision to preserve the Lucretian model of death in his own description, without reintroducing any details that suggest an immortal, non-atomic soul, marks Dido's death as a moment conspicuously lacking in remythologization. As Lyne and Hejduk conclude, the absence of a disembodied spirit at the moment of death—a detail that Virgil mentions explicitly in the deaths of Lausus, Turnus, and others—creates the fleeting yet powerful impression that Dido's soul really has suffered an atomic dissolution.[11] Even though this impression is eventually corrected by Dido's appearance in the underworld, her death strikes a jarring note within the poem that points to an as-yet unresolved conflict between fortuitous materialism and pro-Trojan teleology.[12]

While most of the Epicureanizing details in Virgil's characterization of Dido and Carthage focus on ethical stereotypes, it is fitting that the queen's climactic death is presented in atomic terms. In addition to foreshadowing Rome's historical rejection and defeat of Carthaginian power, the atomic nature of Dido's death serves as an ironic rejection of Epicureanism, where the failure of Epicurean ethics is conveyed through the image of Dido's soul being annihilated by Epicurean physics. This self-destruction establishes a pattern for the rest of the poem, in which Virgil associates prominent enemies of Aeneas with the chaotic worldview of atomism. By portraying the deaths of these characters as atomic phenomena in various respects, the poet thus conflates the failures of non-Trojans with the self-negating irrationality that philosophical critics since Aristotle had attributed to atomic physics.[13]

3.2 ITALIANS AND THE ATOMIC BATTLEFIELD

After Dido's suicide, the next significant cluster of non-Trojan activity associated with atomism takes place in the back-and-forth fighting between the

[11] See Dyson 1996: 219 and Lyne 1994: 196.

[12] Cf. Lyne 1994: 196: "This is one of those many occasions where the text of the *Aeneid* is in dialogue, one might say in conflict, with itself . . . So what is the truth? Does Dido continue to exist, and to exist virulently, after death? Or does she suffer obliteration, are the implications of 4.704f. right, and are we the readers the victim of an illusion in, say, Book 6? We make up our own mind."

[13] See the discussion of Aristotle's characterization of atomism in Chapter 1, Section 2.

Trojans and Italians in Book 10. The cosmological and allegorical stakes of this contest are established early in the fighting by a weather simile that skillfully combines traditional descriptions of epic combat with scientific language culled from Lucretius:

> expellere tendunt
> nunc hi, nunc illi: certatur limine in ipso
> Ausoniae. magno discordes aethere venti
> proelia ceu tollunt animis et viribus aequis;
> non ipsi inter se, non nubila, non mare cedit;
> anceps pugna diu, stant obnixa omnia contra:
> haud aliter Troianae acies aciesque Latinae
> concurrunt, haeret pede pes densusque viro vir. (*Aen*. 10.354–61)

> Now this side strives to drive back that side, now that side this, and the struggle occupies the very doorstep of Italy. Just as when discordant winds do battle in the great sky, equal in spirit and strength; neither yields to the other, nor cloud, nor sea, and the fight remains long undecided, with all things striving against one another—no differently do the Trojan and Latin battle lines rush together, foot clinging to foot and man to man in the thick press.

Like the famous double polyptoton at the end of this passage (*pede pes . . . viro vir*), the comparison between combat and discordant winds has a distinguished pedigree in Greek and Roman epic, with commentators as early as Macrobius tracing the lineage of Virgil's wind similes back to specific passages in both Ennius and Homer.[14] However, as Conington and Nettleship note, key details and emphases in Virgil's wind simile differ from the Homeric model, and it seems that Ennius' *Annales* had the greater influence upon Virgil's choice of words when he adapted the Iliadic model into Latin:[15]

[14] The most commonly cited Homeric model is *Il*. 16.765–71. For the Latin tradition, see Macrob. *Sat*. 5.13.14 and 6.2.28. See also discussion of the relationship between these Greek and Latin epic models at Skutsch 1985: 592–94, as well as comments by Harrison 1991 at the place. For the Greek and Roman antecedents of Virgil's double polyptoton, see Harrison 1991 at the place. If one wishes to press the Lucretian feel of this passage even further, one might also interpret the *pede pes . . . viro vir* as being "atomic" in a verbal sense, because of the suggestive pairings of similar word elements. This verbal atomism, based on the atomists' own analogy between the letters of words and the atoms of compounds, is the subject of more extensive study in Friedländer's "Pattern of Sound and Atomistic Theory in Lucretius" (1941), as well as Snyder's *Puns and Poetry in Lucretius*' de Rerum Natura (1980) and, more recently, Shearin's *The Language of Atoms* (2015).

[15] See C-N at the place.

> concurrunt veluti venti, quom spiritus Austri
> imbricitor Aquiloque suo cum flamine contra
> indu mari magno fluctus extollere certant. (Enn. *Ann*. 432–34)

> Just as the winds rush together, when the blowing of the rain-bringing South Wind and the North Wind with its gust strive against each other to stir up waves in the great sea.

To further complicate matters, Virgil's simile also evokes a passage of Lucretius that describes how thunder results from atomic interactions between winds and clouds:[16]

> principio tonitru quatiuntur caerula caeli
> propterea quia concurrunt sublime volantes
> aetheriae nubes contra pugnantibus ventis. (Lucr. 6.96–98)

> First the blue sky is shaken by thunder because the airy clouds flying high in the sky rush together on account of the winds battling against them.

Untangling this knotty cluster of Greek and Latin intertextual relationships is a daunting task, and while one may feel that each author is evoking specific models from earlier poetry (and not simply referencing a stale literary topos for its own sake), the accumulation of borrowing, translation, and rephrasing on display in the Virgilian passage defies a straightforward "genealogical" account.

However, if we limit our focus to the Latin models, the striking similarities of vocabulary and rhetorical effect between the texts of Ennius, Lucretius, and Virgil strongly suggest that Virgil was drawing upon *both* Ennius and Lucretius in a detailed and significant fashion. Indeed, while it is difficult to identify any lexical "smoking gun" that irrefutably proves the intertextual relationship vis-à-vis Lucretius, modern commentators have generally agreed that Virgil's *magno discordes aethere venti/ proelia ceu tollunt* ("discordant winds do battle in the great sky," *Aen*. 10.356–57) engages in some way with Lucretius' *aetheriae nubes contra pugnantibus ventis* ("airy clouds flying high in the sky . . . on account of the battling winds," Lucr. 6.98).[17] In particular,

[16] Lucretius reinforces the military aspect of this simile with the metaphor of clouds moving in *denso agmine* ("a dense battle line") two lines later (Lucr. 6.100).

[17] See Harrison 1991; Williams 1973; and C-N at the place. Bailey ad Lucr. 6.97 also compares Lucretius' clashing winds to *G*. 1.318: *omnia ventorum concurrere proelia vidi* ("I saw all the battling winds rush together").

the *aethere* ("upper air") in the Virgilian passage cannot be explained with reference to the Homeric or Ennian passages, but seems to evoke Lucretius' *aetheriae nubes* ("airy clouds"), with the shift from the adjectival to the nominal form of *aether* simultaneously obscuring and highlighting Virgil's borrowing in typical allusive fashion.[18]

This Lucretian element in the Virgilian simile is further reinforced by other details that evoke Epicurean natural philosophy alongside Homeric and Ennian combat. First is the word *concurrunt* ("they run together"), which appears as the main verb in the Ennian and Virgilian similes, as well as the Lucretian explanation of thunder. While commentators working within the Iliadic epic tradition tend to identify Homer's description of soldiers "rushing together" (ἐπ᾽ ἀλλήλοισι θορόντες, 16.770) as the inspiration for Virgil's *concurrunt*, Bailey attributes Lucretius' use of *concurrunt* to the language of Epicurean natural philosophy, wherein lightning is caused by the "crashing together of clouds" (σύγκρουσιν νεφῶν, Epicurus *Ep. Pyth.* 101).[19] Of course, these two explanations need not be mutually exclusive, since we have already seen that Lucretius and Cicero repeatedly compared atomic motion with human combat in the generation before Virgil, both for better and for worse.[20] In fact, given the overwhelmingly negative reception of atomism throughout the rest of the *Aeneid* as a symbol of violence and disorder, I would suggest that Virgil's conflation of Epicurean natural science and the brutal combat between the Trojans and Italians is entirely fitting in the wind simile, as it anticipates a similar allusive pairing in the poem's finale, discussed at length in the next chapter.

Another detail in the Virgilian passage that recalls Lucretian descriptions of atomic motion is the back and forth striving of the Trojans and Italians on the battlefield: *nunc hi, nunc illi* ("Now this side strives to drive back that side, now that side this," *Aen.* 10.355). In his commentary on this line, Harrison argues that the *nunc hi* anaphora is "characteristically Virgilian," citing a number of other lines with similar phrasing that evince no particular

[18] I refer here to the productive tension between "revelation and concealment" that is so characteristic of ancient allusion; see Hinds 1998: 23. Serv. at the place further confirms the noteworthiness of *aether* ("upper air") as a synonym for "sky" in the Virgilian line, observing that one would expect to see *aer* ("air") instead.

[19] Epicurus also uses the word σύγκρουσις ("crashing together") to refer to the collision of individual atoms (*Ep. Hdt.* 44; cf. Plut. *Adv. Col.* 1112b).

[20] See, e.g., Lucretius' description of atomic "battle lines" contending on the surfaces of hard objects at 2.448: *prima acie constant ictus contemnere sueta* ("they stand firm in the front ranks, accustomed to disregard opposing blows").

connection with atomism.[21] However, while it is true that Virgil uses the phrase in some contexts that are not identifiably atomic, we saw in the previous chapter that Virgil's use of the phrase *nunc huc nunc illuc* (especially in combination with other Lucretian details) had the potential to evoke Epicurean descriptions of fortuitous atomic motion. Therefore, when we are determining whether to interpret *nunc hi, nunc illi* as an unremarkable Virgilian idiom or as a meaningful poetic allusion, the Lucretian wording and context of the simile as a whole should prime us for a more sensitive reading that takes account of the phrase's philosophical connotations.

How, then, do these atomic details function within the broader context of the battlefield depicted in Book 10? First of all, given the dizzying variety of allusive models at play in the Virgilian simile, it is important to remember that the primary allusive source for the scene is Homer's *Iliad*, which furnishes exemplary similes comparing combat to weather. The allusion to Lucretian thunderclouds in Virgil's simile supplements this epic model by evoking a particular Epicurean concept of physics for that weather, a concept that is replete with its own set of negative connotations from a variety of philosophical texts concerning cosmic order and teleology. In doing so, the description of the stalemate on the battlefield, which threatens to delay (or even derail) the Trojans' nascent colonization of Latium, conforms to a larger pattern of associating atomic language with obstacles to Roman power in the poem.

Nevertheless, this passage briefly blurs the line separating orderly Trojans from putatively chaotic Italians by portraying *both sides* of the fight in Lucretian terms. On its face, this fact would appear to violate the dichotomy I have been arguing for in terms of how Virgil uses Lucretian language to portray characters on each side. However, the atomistic portrayal of Italian and Trojan soldiers at this moment reflects a more general blurring of distinctions between the two sides in Book 10, precipitated by Jupiter's decision to remove himself from the fighting and to treat the opposing parties on equal terms:[22]

> "quandoquidem Ausonios coniungi foedere Teucris
> haud licitum, nec vestra capit discordia finem,
> quae cuique est fortuna hodie, quam quisque secat spem,
> Tros Rutulusne fuat, *nullo discrimine habebo* . . ." (*Aen*. 10.105–8)

[21] Cf. the description of boxing at *Aen*. 5.441: *nunc hos, nunc illos aditus* ("now these approaches, now those"), as well as the dead souls at 6.315: *navita sed tristis nunc hos nunc accipit illos* ("but the sad ferryman receives now these people, now those").

[22] See Quint 2018: 157.

> "Since it has not been permitted for the Teucrians to join in an alliance with the Ausonians, and since your discord finds no end, whatever fortune each side obtains today, or whatever hopes they entertain, be they Trojans or Rutulians, *I will make no distinction between them . . .*"

By abdicating responsibility and leaving the outcome of the battle to *fortuna* ("fortune," 10.107), reformulated a few lines later as *fata* ("the fates," 10.113), Jupiter sets the stage for a fight in which the guiding hand of a kinglike divinity is conspicuously absent—if only for the moment.[23] Against this background, the stalemate depicted at *Aen*. 10.354–61 represents a tense moment of uncertainty, in which the success or failure of the Trojans still hangs in the balance, undecided. In the chaos of this indecisive fighting, the use of Lucretian language implicates both parties in the ongoing violence and confusion that results from Jupiter's absence.

3.3 TURNUS AND THE PHANTOM AENEAS

Against this backdrop of conflict and uncertainty, a number of subordinate gods and goddesses step in to fill the void. One of the most consequential moments of divine interference occurs when Juno diverts Turnus from his impending confrontation with Aeneas and leads him away from the battlefield in a fashion that further reinforces the thematic connections between Aeneas' Italian opponents, atomism, and cosmological disorder. After the death of Pallas (10.486–89), Aeneas pursues Turnus, wreaking havoc across the battlefield and prompting Juno to intervene on behalf of the Italian chieftain. In a clear reworking of a similar ploy by Apollo in Book 5 of the *Iliad*, Juno creates a phantom Aeneas who tricks Turnus into pursuing him off of the battlefield and onto a waiting ship:

> tum dea nube cava tenuem sine viribus umbram
> in faciem Aeneae (visu mirabile monstrum)
> Dardaniis ornat telis, clipeumque iubasque
> divini adsimulat capitis, dat inania verba,

[23] Despite various efforts by Juno, Juturna, and Venus to influence the events of Book 10, Jupiter continues to abstain from the fighting even in the tense moments before Pallas' death: *sic ait, atque oculos Rutulorum reicit arvis* ("Thus he spoke, and he turned his eyes away from the fields of the Rutulians" 10.473).

> dat sine mente sonum gressumque effingit euntis,
> morte obita qualis fama est volitare figuras
> aut quae sopitos deludunt somnia sensus. (*Aen*. 10.636–42)

> Then the goddess fashions a wispy, strengthless phantom out of hollow cloud in the image of Aeneas (an amazing marvel to see). She adorns it with Dardan spears, counterfeiting his shield and the crest atop his godlike head, and she gives it empty words, thoughtless sounds, and the gait of a walking man; like the images that fly about (so it is said) when people have met their deaths, or the dreams that trick the senses while one sleeps.

Although most details of this passage hew closely to the Homeric model, a few significant differences stand out. First, in the Iliadic passage (*Il*. 5.449–53), Apollo creates his phantom in order to protect the wounded Aeneas from Diomedes, while Virgil modifies the scene in order to make Aeneas the aggressor and Turnus the potential victim. In addition, the Homeric description does not specify what material the phantom—described simply as an εἴδωλον—is made of.

Instead, it appears that Virgil took inspiration for the material of his phantom from two other sources. The first is an entirely separate rescue scene from Book 20 of the *Iliad*, in which Poseidon saves Aeneas from an imminent death at the hands of Achilles (*Il*. 20.318–352).[24] In that scene, the god casts a mist (ἀχλύς) over Achilles' eyes before whisking Aeneas away from the battlefield: αὐτίκα τῷ μὲν ἔπειτα κατ᾽ ὀφθαλμῶν χέεν ἀχλὺν/ Πηλεΐδῃ Ἀχιλῆϊ ("Then he immediately poured out a mist over the eyes of Achilles, son of Peleus," *Il*. 20.321–22). Although Homer does not specify what material the mist is made out of, and mentions no cloud or mist in conjunction with Aeneas' own body, Virgil conflates the mist over Achilles' eyes with his own phantom Aeneas, when Neptune in Book 5 recounts his Iliadic rescue of Aeneas (cf. *Il*. 20.259ff.) by means of a *nube cava* ("hollow cloud"): *Aenean . . ./ nube caua rapui* ("I snatched away Aeneas in a hollow cloud," *Aen*. 5.809–10). This detail concerning Aeneas is mentioned nowhere in the Homeric description, and appears to be an innovation on Virgil's part.

The second, more straightforward source for the cloud material of Virgil's phantom Aeneas is Euripides' *Helen*, in which Hera created her phantom

[24] See Quint 2018: 164–67.

Helen out of clouds.[25] One detail, however, that is accounted for in neither the Homeric nor the Euripidean model is the *hollowness* of the cloud (*nube* cava, *Aen*. 10.642) out of which Juno fashions her phantom Aeneas.[26] While the notion of clouds or phantoms being hollow may seem a trivial feature of the Virgilian passage, it is one that is never explicitly stated in the Homeric poems, which describe clouds almost exclusively as "dark," "thick," or "black," even when they are used to disguise or enfold a body.[27] In fact, I am unable to find a single use of κοῖλος ("hollow") or any equivalent term to describe clouds anywhere in the extant texts of Greek epic, lyric, or tragedy prior to the 1st century. By contrast, Virgil stresses the feature of emptiness multiple times in the *Aeneid*, using the adjective *cavus* ("hollow") to describe the deceptive cloud that Venus casts around Achates and his fellow Trojans (1.516), a reference to Neptune's rescue of Aeneas from Achilles in *Iliad* 20 (5.810), the shades of the dead in the underworld (6.293), storm clouds in a combat simile (9.671), and the divine cloud with which Diana promises to transport Camilla's dead body from the battlefield for safe burial (11.593).[28]

Yet while the hollowness of clouds is absent from epic poets like Homer, Apollonius, and Ennius, it does feature prominently as a subject of Greek natural philosophy from the 6th century onward, when the traditional attribution of lightning to Zeus seems to have attracted many early attempts at providing alternative rationalizing explanations. It is my contention that Virgil's hollow cloud at 10.642, particularly when viewed in context with certain Lucretian intertexts only a few lines later, evokes clouds precisely in their capacity as a popular subject of philosophical speculation.

One of the earliest recorded non-mythological theories about the nature of clouds is that of Anaximander, who posited that air trapped within clouds

[25] See Euripides' description at *Hel*. 34: εἴδωλον ἔμπνουν οὐράνου ξυνθεῖσ᾽ ἄπο ("She fashioned a living phantom out of the sky"). The phantom is twice elsewhere referred to as a νεφέλης ἄγαλμα ("an image made from cloud," 705, 1219).

[26] Interestingly, in Euripides' play Hermes temporarily hides the real Helen ἐν πτυχαῖσιν αἰθέρος/ νεφέλη καλύψας ("in the folds of a cloud," *Hel*. 44–45), but this detail is never connected to the phantom image.

[27] Thus the cloud used to rescue the Homeric Aeneas is a κυανέη νεφέλῃ ("dark cloud," *Il*. 5.345); the Olympian cloud-gate is a πυκινὸν νέφος ("dense cloud," 5.751); and the cloud of death is a μέλαν νέφος ("black cloud," 16.350). One outlier occurs at *Il*. 17.551, when Athena disguises herself with a πορφυρέῃ νεφέλῃ ("dark-gleaming cloud"). By far the most common Homeric descriptor for clouds is "black" or "dark," some version of which occurs eight times in the *Iliad* and five times in the *Odyssey*.

[28] Word search for κοῖλος ("hollow") and equivalents performed by using *TLG* database. Similarly, a search for *cavus* ("hollow") and its variants in the *TLL* and in the *PHI* database turns up no results prior to Virgil outside of Lucretius.

caused thunder and lightning when it burst out into the open sky.[29] Later natural philosophers such as Anaximenes and Democritus elaborated this theory according to their own conceptions about material nature, and it seems that the idea caught on widely among the different philosophical schools, to judge by references in Aristotle and Epicurus to the "hollows" of clouds.[30] Additional evidence for the widespread popularity of clouds as a topic for rationalizing speculation comes from Aristophanes' *Clouds*, whose very title singles out meteorology as the paradigmatic subject of natural philosophy. Of particular interest is the scientific hypothesis attributed to Socrates that concerns thunderbolts, which recalls the theories of Anaximander and Anaximenes:[31]

> ὅταν ἐς ταύτας ἄνεμος ξηρὸς μετεωρισθεὶς κατακληισθῇ,
> ἔνδοθεν αὐτὰς ὥσπερ κύστιν φυσᾷ, κἄπειθ' ὑπ' ἀνάγκης
> ῥήξας αὐτὰς ἔξω φέρεται σοβαρὸς διὰ τὴν πυκνότητα,
> ὑπὸ τοῦ ῥοίβδου καὶ τῆς ῥύμης αὐτὸς ἑαυτὸν κατακάων. (Ar. *Nu*. 404–7)
>
> When an arid wind arises and has been shut within these clouds, it inflates their insides like a bladder. Then, having been compelled to break these clouds apart, the wind rushes out violently because of its density, lighting itself on fire due to its rushing force.

While Aristophanes characteristically lampoons this explanation by comparing it to the process of farting, the fact that the playwright bothered to spoof it in such philosophically precise detail suggests that this materialist notion of hollow clouds was already well established in Greek literature as a natural philosophical explanation for thunder and lightning.

Shifting now to the Latin philosophical tradition, one may find derivative descriptions of clouds sparsely attested in philosophical prose before the time of Virgil, but it is Lucretius' *de Rerum Natura* that offers the clearest and best attested articulation of a hollow-cloud theory in Latin.[32] Of special

[29] For the relevant ancient testimonia, see *KRS* 129, 130.

[30] See Arist. *Mete*. 2.9 369b1–4 and Epicurus *Pyth.* 100.5–6, which speak of τῶν νεφῶν τὰς μεταξὺ κοιλίας ("the hollows within the clouds") and τοῖς κοιλώμασι τῶν νεφῶν ("the hollows of the clouds"), respectively. The Epicurean passage is quoted in full in n. 34. For Anaximenes and Democritus, see *KRS* 158 and Taylor 1999: 94, 100.

[31] See Dover 1968 at the place. Gábor Betegh 2013: 89 also connects this description to Archelaus' theory concerning the causes of earthquakes, as described at Sen. *Nat*. 6.12.

[32] Cicero records Stoic doctrines about clouds at *Div*. 2.19.44 and *N.D.* 2.39.101, but only the first passage discusses the action of trapped air: *ventos esse; cum autem se in nubem induerint* . . . ("there are winds, and when they bury themselves into a cloud . . .").

relevance to the Virgilian phantom passage is the fact that *de Rerum Natura* provides the earliest attestation for the use of the adjective *cavus* (or any of its related nominal or verbal forms) to describe clouds.[33] Furthermore, unlike earlier accounts by non-atomists, Lucretius describes a meteorological scenario in which clouds become entirely hollowed out with air, thickening around the perimeter so as to form a sort of container or vessel:

> subito validi venti collecta procella
> nubibus intorsit sese conclusaque ibidem
> turbine versanti magis ac magis undique nubem
> cogit uti fiat spisso *cava* corpore circum. (Lucr. 6.124–27)

> [Thunder may occur when] the gale of a strong wind has suddenly gathered and twisted itself into the clouds where, having been shut within, it compels the cloud with its whirling force more and more in every direction to *hollow out*, thickening the outside of its body.

Although the evidence for Hellenistic meteorology is extremely fragmentary, necessarily rendering any conclusions tentative, the hypothesis of clouds becoming entirely hollow—as opposed to having only the occasional bubbles or pockets, as Aristotle suggests—seems to be a particular doctrine of Epicurus, who includes it in the epitome of Epicurean meteorology in his letter to Pythocles.[34] It would be unwise to identify Virgil's hollow cloud as an *exclusively* Epicurean detail solely on the strength of one fragment when so many other works of Hellenistic literature have been lost, but the collective evidence from various schools of philosophy strongly supports the notion that Virgil's *nubes cava* ("hollow cloud") evokes a generally philosophical idea of clouds that is otherwise unattested in the epic tradition before the *Aeneid*.

This subtle evocation of materialist natural philosophy is magnified only a few lines later, when Virgil describes the phantom Aeneas with two phrases taken verbatim from Lucretius:

> morte obita qualis fama est volitare figuras
> aut quae sopitos deludunt somnia sensus. (*Aen*. 10.641–42)

[33] See Lucr. 6.127, 176, 194–203, and 272.

[34] Epicurus *Pyth*. 100.5–6: βροντὰς ἐνδέχεται γίνεσθαι καὶ κατὰ πνεύματος ἐν τοῖς κοιλώμασι τῶν νεφῶν ἀνείλησιν, καθάπερ ἐν τοῖς ἡμετέροις ἀγγείοις ("It is possible that thunder arises from the confining of wind within the hollows of the clouds, just like what happens to us with vases").

> [The phantom was] like the images that fly about (so it is said) when people have met their deaths, or the dreams that trick one's senses while asleep.

The phrase *morte obita* ("having met their deaths") is rare in Latin verse, and commentators since Macrobius have linked Virgil's usage to Lucretius, who employs it twice.[35] The first instance occurs in a passage critiquing the mythological notion of disembodied spirits (Lucr. 1.135), which Lucretius later paraphrases in Book 4 when providing the "correct" atomic explanation for why we occasionally see images of the dead in our dreams (4.734):[36]

> Centauros itaque et Scyllarum membra videmus
> Cerbereasque canum facies simulacraque eorum
> quorum morte obita tellus amplectitur ossa. (Lucr. 4.732–34)

> Thus we see Centaurs and the limbs of Scyllas, the faces of Cerberus and the *eidola* (atomic images) of those who have met death and whose bones the earth holds in its embrace.

While the prosaic version of this phrase, *mortem obire*, does not exhibit any atomic connotations prior to Lucretius, certain factors support the notion that Virgil treats the intertext as having specific philosophical (and not just stylistic) reference. Lucretius uses the phrase in two passages, first to describe an inaccurate mythological explanation for dream visions of the dead, and then when offering the correct atomic account. By recycling some of the language from the incorrect mythological account in his later atomic explanation (4.732–34), Lucretius deploys the otherwise neutral *morte obita* in a conspicuously rationalizing context. As we will see shortly, when Virgil borrows this phrase in the *Aeneid*, he also borrows some of the rationalizing spirit of the source passage, even while carefully distancing himself from its authority.

[35] See Macrob. *Sat*. 6.1.48; cf. Mellinghoff-Bourgerie 1990: 212–13; Lyne 1989: 110–11; and Harrison 1991 at the place. The phrase occurs once in literary prose before Virgil, at Cic. *Sest*. 83.7, and is attested in three inscriptions dating from later periods. I am grateful to Joshua Hartman for sharing with me an early draft of his 2016 dissertation, and whose examination of the intertextual lineage of *morte obita* in connection with Ausonius' *Professores* provided stimulating points of comparison for my own analysis. For more on the epigraphic evidence for the phrase, see Hartman 2016: 65 n. 66.

[36] Cf. Lucr. 1.134–35: *cernere uti videamur eos audireque coram,/ morte obita quorum tellus amplectitur ossa* ("so that we seem to see and hear face to face those whose bones the earth has embraced after they have met their deaths").

In a similar fashion, Virgil borrows the end of that same line, *volitare figuras* ("images fly about," *Aen*. 10.641), from a Lucretian passage arguing for the variability of atomic shapes:

> natura quoniam constant neque facta manu sunt
> unius ad certam formam primordia rerum,
> dissimili inter se quaedam volitare figura. (Lucr. 2.378–80)
>
> Because the atomic first-beginnings are made by nature, not by hand according to the fixed form of one model, they fly about with differing shapes.

Although *figura* ("shape") in the Lucretian passage refers to the shapes of different atoms, and therefore does not correspond exactly to Virgil's spectral *figuras* ("images"), the word itself is interesting, as Lucretius uses it elsewhere to describe the atomic images (*simulacra* or εἴδωλα) emanating from the surfaces of objects that render them visible: *dico igitur rerum effigias* tenuis*que* figuras/ *mittier ab rebus summo de cortice eorum* ("therefore I state that the images and the *fine impressions* of things are emitted from their surfaces." Lucr. 4.42–43).[37] Such images are, of course, how Lucretius accounts for the appearance of dead people in visions and dreams—they are atomic *simulacra* ("images") that were emitted when the person was alive, and which may ricochet back and impinge upon someone's dreaming mind at a later point in time.[38] Yet *figura* also served as a traditional word for deceased shades, similar to *umbra* ("ghost" or "shade"), an ambiguity that Lucretius exploits adroitly in his rationalizing attempt to explain ghostly *figurae* as the result of atomic *figurae*.[39] Therefore, by first describing Aeneas' phantom as an *umbra* (10.636) and then comparing it to *figurae* in a markedly

[37] Cf. Quintilian's use of *figura* to denote *simulacra* ("images") at Quint. 10.2.15: *illas Epicuri figuras quas e summis corporibus dicit effluere* ("those images that Epicurus says emanate from the surfaces of physical objects"). In a note ad Lucr. 4.30, Bailey suggests that Lucretius' *figura* may translate Democritus' and Epicurus' τύπος, a technical term for the "impression" made upon the viewer by the atomic image (cf. Thphr. *Sens*. 52; Epicurus *Ep. Hdt*. 46a). Cicero also attests the use of the word *spectrum* as a translation for atomic εἴδωλα ("images"), attributing it to Catius Insuber, an Epicurean writer who was a contemporary of Cicero; see Cic. *Fam.* 15.16.1 and 15.19.1.

[38] See Lucr. 4.722ff.

[39] Compare the description of shades seen in dreams at Lucr 4.30–35, which uses the same language: *volitant* ("they fly," 4.32) and *figuras* ("images," 4.34). See also the disapproving description of ghosts at 4.37–38: *ne forte reamur/ effugere aut umbras inter vivos volitare* ("lest by chance we think that *shades* escape and *fly about* among the living"), as well as *Insc. Orell.* 4847: *cum vita functus iungar tis umbra figuris* ("When, having lived my life through, I shall be joined as a shade with your phantoms").

Lucretian formulation (10.641), Virgil plays upon both the ghostly and the atomic associations of the word *figura*.

All the same, one might still plausibly classify lines 10.641–42 as an instance of remythologizing, in which the point is to appropriate a rationalizing, atomic moment from Lucretius and reintroduce mythological gods as the cause of natural phenomena, were it not for Virgil's use of a literary citation device, *fama est* ("so it is said," *Aen*. 10.641), which tips the balance in favor of a more philosophically sensitive interpretation. According to Harrison, the phrase *fama est* is cautionary, meant to distance the author from the comparison even as he provides it: "a 'reporting' device, here carefully not vouching for events beyond the grave." I believe that Harrison is correct in attributing some distance or reluctance to Virgil's citation, yet it is strange that Virgil should not "vouch for events beyond the grave" when he does just that for nearly the entirety of Book 6. Rather, I think that it makes more sense to view *fama est* as an instance of "Alexandrian footnoting," a widely attested practice among Roman poets of the 1st century BCE that Stephen Hinds defines as "the signalling of specific allusion by a poet through seemingly general appeals to tradition and report."[40] In effect, Virgil's attribution to common report (*fama*) of the comparison at 10.641–42 marks the presence of a citation, while the thoroughly Lucretian vocabulary, content, and phrasing of the lines specify the source of that citation without naming him outright. To modify Harrison's formulation, I believe it is more appropriate to say that Virgil's *fama est* indicates the author's refusal to vouch for his comparison precisely because it is Lucretian and atomic, and has not been subjected to the sort of remythologizing that characterizes so many other Lucretian intertexts in the *Aeneid*.

In order to understand the purpose of this comparison between the phantom Aeneas and atomic physics, let us step back slightly and again consider the passage as a whole. At the beginning of the description of the phantom Aeneas, Virgil alludes to the idea of natural philosophy in general with the detail of the hollow cloud (10.636); then, he evokes a specifically Epicurean model by comparing the phantom to Lucretian dream images, a reference that is strongly marked by the device of the Alexandrian footnote, *fama est* ("so it is said," 10.641). In doing so, Virgil metaphorically recasts mythological *umbrae* ("shades") as more scientific *figurae*, a word that may

[40] For further discussion of the phrase, which originates with David Ross (1975), as well as of the practice itself, see Hinds 1998: 1–5.

also denote shades in a funerary context, but that in its Lucretian sense can be understood to mean visible atomic images.

However, it is important to note that Virgil performs this Epicureanizing of cloud material only in this one limited, local context, at a point when the phantom image is used to rescue Turnus.[41] Furthermore, Virgil does not suggest that the cloudy phantom is literally composed of atoms, but simply allusively suggests that the two are alike. To make sense of this Lucretian comparison, which I argue is far more than a trivial stylistic homage, I propose that we interpret it in light of the many other moments of atomic allusion already discussed in which Virgil links atomic cosmology with Rome's enemies. By evoking atomism in connection with the phantom Aeneas, Virgil raises the specter of chaotic atomic physics at a moment of temporary setback for the Trojans, when Turnus is allowed to escape what should have been certain defeat. This device has the effect of delaying the progress of Roman power, while further deepening the allegorical association between atomism and the various enemies of political and cosmic order in the poem.

This philosophical association crops up once more near the end of the phantom chase scene, after Turnus has been lured away from the battlefield and onto the ship that carries him back to his father's homeland. Distressed and ashamed at his removal from the fight, Turnus contemplates suicide in a moment of despair, the language of which closely mirrors earlier episodes of indecision by Aeneas:

> haec memorans animo nunc huc, nunc fluctuat illuc,
> an sese mucrone ob tantum dedecus amens
> induat et crudum per costas exigat ensem,
> fluctibus an iaciat mediis et litora nando
> curva petat Teucrumque iterum se reddat in arma. (10.680–84)

> While relating these things he wavers in his mind, now here, now there, unsure of whether he should madly throw himself upon a sword after suffering such a disgrace, driving the cruel point through his ribs, or whether he should toss himself into the waves and swim to the crooked coast to seek the Trojan arms once more.

[41] By comparison, when Venus fashions a protective shield out of *nube cava* ("hollow cloud") for the Trojans at *Aen*. 1.516, there are no conspicuous Lucretian intertexts that follow.

As I have already argued at length in the previous chapter, the phrasing of *nunc huc, nunc illuc* ("now here, now there") evokes Lucretian descriptions of haphazard atomic motion in three earlier episodes of indecision in the *Aeneid* (4.283–86, 5.700–703, 8.18–25), and here too the effect is to portray Turnus' uncertainty as being turbulent and undesirable in the same way that atoms are. However, unlike Aeneas, whose momentary atomic wavering yields to divine persuasion and good sense, Turnus attempts both to kill himself and to swim to shore three times in a row (*ter conatus utramque uiam*, 10.685), and is restrained only by Juno's interference. We may say that for Aeneas, atomic indecision represents a surmountable obstacle to Roman destiny, while for Turnus, the association with atomism is both inescapable and wholly negative, offering only continued frustration and failure. As we will see in the next chapter, which examines the finale of Book 12, this pattern of association reaches its climax when Aeneas kills Turnus, a personal defeat laced with references to the self-destruction and failure of atomic worlds predicted by atomic physics.

3.4 ATOMISTIC MEZENTIUS

The final episode of atomic imagery in Book 10 concerns Mezentius, whose defeat and death foreshadow the looming defeat of Epicurean cosmology at the end of the poem. Although Mezentius has not received nearly as much scrutiny as Dido as an object of philosophical allegory, Leah Kronenberg (2005) has proposed a detailed interpretation of the Italian chieftain as an allegorical Epicurean, whose words and actions provide a voice of political dissent, as well as a microcosm for how one might interpret the rest of the poem in Epicurean terms.[42] While I hesitate to endorse certain conclusions of Kronenberg's argument, which focuses largely on identifying Epicurean ethical values, rather than natural philosophy or cosmology, I agree with her core premise that Mezentius is connected with Epicureanism.[43] In my own

[42] See Kronenberg 2005: 404: "Mezentius, even more than Dido, evokes Epicurean philosophy, and in a manner that similarly allows for an Epicurean reading of the poem's action."

[43] While I find many of Kronenberg's proposed allusions compelling and convincingly argued as they pertain to Epicurean ethics, I believe that the possibility of a deviant Epicurean reading of the *Aeneid* as a whole is less tenable with regard to physics and cosmology, because of the poem's systematic rejection of non-teleological cosmology. It has been one of the aims of the present study to show that dissenting Epicurean interpretations are inevitably limited to local contexts, where they are frequently characterized as chaotic or otherwise undesirable.

interpretation of Mezentius, I focus on intertextual connections to Epicurean physics, in order to determine how certain Lucretian facets of his character connect to larger themes in the poem concerning cosmology. I argue that, as with the description of Dido's death, which contains details that evoke the dissipation of an atomic soul, the allusions to Lucretius' materialist psychology at the conclusion of Book 10 associate Mezentius' death with the overall disorder and instability of atomic physics.

The first detail hinting at this association occurs in a short, mocking speech delivered by Aeneas as he stands over the downed Etruscan warrior, still dazed after falling from his horse: *ubi nunc Mezentius acer et illa/ effera vis animi?* ("Where now are fierce Mezentius and that wild strength of spirit?" *Aen*. 10.897–98). As Harrison notes, the phrase *vis animi* ("strength of spirit") has a distinctive Lucretian ring, and it occurs nine times in *de Rerum Natura*.[44] Yet the speech as a whole seems to be modeled upon a quip made by Sarpedon to Hector in Book 5 of the *Iliad*, by which Sarpedon tries to goad the Trojan prince back into fighting: Ἕκτωρ, πῇ δή τοι μένος οἴχεται, ὃ πρὶν ἔχεσκες; ("Where, then, has your strength gone, which you formerly possessed?" *Il*. 5.472). Therefore, in the Virgilian adaptation, *vis animi* functions as a Lucretian elaboration upon Homer's more straightforward μένος ("strength"). As noted in the discussion of *vis venti* ("strength of the wind") in the previous chapter, Lucretius uses the *vis* + genitive construction in many contexts to emphasize the physical *force* of moving atoms that causes natural or psychological phenomena, and so the phrase potentially evokes not just a stylistic quirk of Lucretius', but also the atomic doctrine that this quirk is supposed to illustrate.[45] In its most philosophically sensitive interpretation, Aeneas' derisive rebuke could represent a criticism of Mezentius' atomic *animus* ("spirit")—thus tying his violence and cruelty to the Epicurean model of materialist psychology.

A skeptical reader may hesitate at this point to attribute philosophical meaning to so slight a parallel, but the case for interpreting Mezentius' mind and soul as atomic finds additional support in the lines that follow. When Mezentius, having been jarred by the fall from his horse, recovers his senses, Virgil describes this mental process with evocative Lucretian wording: *hausit caelum mentemque recepit* ("He gulped in air and recovered his mind," 10.899). Harrison points to two allusive models for this line, one Greek and

[44] See Harrison 1991 at the place, as well as Kronenberg 2005: 420.
[45] Cf. previous discussion of *vis venti* ("strength of the wind") at p. 59.

one Latin.[46] First is the Iliadic description of Andromache regaining consciousness after the initial shock of hearing about Hector's death: ἡ δ' ἐπεὶ οὖν ἔμπνυτο[47] καὶ ἐς φρένα θυμὸς ἀγέρθη ("then she recovered her breath and her spirit was gathered into her chest," *Il.* 22.475). While Homer's ἔμπνυτο ("recovered her breath") accounts for the gulping of air (*hausit caelum*) in the first half of the Virgilian line, the second half more closely resembles a line-ending in Lucretius that describes the process by which epileptics regain their senses after a seizure: *paulatim redit in sensus animamque receptat* ("gradually he returns to his senses and regains his soul," Lucr. 3.505).[48] Granted, variations of the phrase *animum recipere* ("to regain one's mind") are attested sporadically in non-atomic contexts outside of the *Aeneid*, suggesting that the phrase served as a loose idiom, but the similar word order, line-end position, and use of the enclitic *-que* all suggest the Lucretian line as a more specific model for Mezentius' return to consciousness.[49] Furthermore, while in English the physical metaphor of "regaining one's mind" has become an empty cliché in the era of modern science, the phrase in Lucretius describes a literal process grounded in an atomic understanding of psychology. As a physical object composed of superfine atoms, the Epicurean soul can be physically tossed about by disturbances in the body. By describing Mezentius' return to consciousness in similarly physical terms (*mentemque recepit*), and only one line after Aeneas' reference to *vis animi* ("strength of spirit"), Virgil casts a subtle Epicurean pall over Mezentius' soul in the moments before his death.

When that death finally comes, only a few lines later, Virgil again resorts to language that evokes Lucretian psychology in combination with an underlying Homeric model:

> haec loquitur, iuguloque haud inscius accipit ensem
> undantique animam diffundit in arma cruore. (*Aen*. 10.907–8)

[46] See Harrison 1991 at the place.

[47] This is Aristarchus' correction of the vulgate reading: ἄμπνυτο ("recovered consciousness"). For a more detailed discussion of whether or not this word should be linked to verbs of breathing, such as ἀναπνέω ("draw breath"), see Kirk 1990: 129, commenting on the merits of ἐμπνύνθη vs. ἀμπνύνθη at *Il*. 5.697.

[48] For the connection between Virgil's *mentemque recipit* ("recovered his mind") and Lucretius' *animamque receptat* ("regains his soul"), see Harrison 1991 at the place. Harrison also links *hausit caelum* ("he gulped in air") to the somewhat common Greek phrase ἀέρα ἕλκειν ("draw in air," i.e., "take a breath"). Although Harrison follows Servius in glossing *caelum*—literally "sky"—as a stylized synonym of *aer* ("air"), it is possible that Virgil's hyperbolic use of *caelum* possesses gigantomachic undertones here.

[49] For other versions of the phrase prior to or contemporaneous with the *Aeneid*, cf. Ter. *Ad.* 324: *animam recipe* ("take a breath"); Livy 2.20.11: *recipit extemplo animum pedestris acies* ("the infantry line suddenly recovered its courage"), and 2.50.10: *ut respirandi superior locus spatium dedit*

> Thus he spoke and, hardly unaware, he receives the sword in his throat and pours his soul out onto his armor in a billowing stream of blood.

The "pouring out" (*animam diffundere*) of Mezentius' soul, which echoes one other Virgilian description of death from Book 1, finds its closest Homeric parallel in a formula for the "loosing" of the soul from the body that occurs at times in the *Iliad*: τοῦ δ᾽ αὖθι λύθη ψυχή τε μένος τε ("straightaway his soul is loosed along with his strength," *Il.* 5.296, 8.123, 8.315).[50] In contrast to most other Homeric descriptions of death, which depict a lively, active soul that moves itself from the inert body, the "loosing" (λύθη) formula imagines the soul being passively ejected by the failing corpse.[51] While Virgil elsewhere in the *Aeneid* depicts souls surviving death and actively leaving the body, the "pouring out" expression (*diffundere*) in Mezentius' death is closer to the passive notion of the soul's release, found in the expression λύθη ψυχή τε μένος τε ("his soul is loosed along with his strength"), than to other early Greek descriptions.[52]

As for the Latin model, modern commentators agree that the pouring out of Mezentius' soul likely alludes to Lucretius' atomic account of death.[53] In four separate passages of Book 3 of *de Rerum Natura*, Lucretius employs some variation of *anima* and (*dif*)*fundere* to describe how the dying body

recipiendique a pavore tanto animum ("when a superior position gave them space to recover their courage from such great terror").

[50] Cf. Aeneas' cry of despair during the storm in Book 1: *Tydide! mene Iliacis occumbere campis/ non potuisse tuaque* animam *hanc* effundere *dextra* . . . ? ("Son of Tydeus, why couldn't I have fallen in the fields of Ilium and *poured out my soul* with your right hand?" 1.98–99). It is perhaps not insignificant that Virgil opts for the materialist, Lucretian wording at a moment when Aeneas is gripped with pessimism about the fate of the Trojans.

[51] For the more usual active description, cf. the soul "flying" and "going" to Hades: ψυχὴ δ᾽ ἐκ ῥεθέων πταμένη Ἄϊδος δὲ βεβήκει ("flying away from his limbs, his soul went down to Hades," *Il.* 22.362). Elsewhere the soul "goes" (ᾤχετο) down to the underworld (*Il.* 23.101) and "abandons the body" (τὸν δ᾽ ἔλιπε ψυχή, *Il.* 5.696; *Od.* 14.426). All of these expressions are consistent with received mythological and religious notions that the soul has its own power and existence independent of the body.

[52] By contrast, the deaths of two other non-Trojans are portrayed in more active (and therefore, less Epicurean) terms, specifically that of Camilla: *exsolvit se corpore . . . vitaque cum gemitu fugit* ("She released herself from her body . . . and her life fled with a groan," *Aen.* 11.829–31), and of Turnus: *vitaque cum gemitu fugit* (12.952). However, these two non-atomic deaths do not invalidate the overall association between non-Trojans enemies and the disorderly worldview of atomism, but instead must be understood on their own terms. In Camilla's case, her mythic association with Diana outweighs the general tendency to associate non-Trojan antagonists in the *Aeneid* with atomism. Turnus' death, on the other hand, marks the final defeat of Epicurean (i.e. non-teleological) cosmology in the poem, and so the traditional, non-atomic nature of his soul's flight to the underworld signals a return to the traditional epic universe of immortal souls and divine order.

[53] See Kronenberg 2005: 424 n. 79: "Virgil emphasizes Mezentius' materialism once more in his description of the dispersion of his spirit (*animam diffundit*)." See also Harrison 1991 at the place.

physically pours out its wispy material soul, the atoms of which are fine enough to allow them to escape the body with ease.[54] Of course, there is room to interpret *animam diffundere* here, as Servius does in his comment on *animam effundere* in Book 1, as a learned reference to an entirely different explanation of the soul residing in blood:[55]

> EFFUNDERE secundum eos qui dicunt sanguinem esse animam, ut ipse alibi "purpuream vomit ille animam." nam alio loco aliorum opinionem sequitur, qui dicunt spiritum esse animam, unde est "atque in ventos vita recessit."
>
> POUR OUT according to those who say that the soul is blood, as Virgil himself says elsewhere: "he spews out his dark red soul." For elsewhere he follows the opinion of others, who say that the soul is breath, according to which he says "and her life receded into the winds."

While Virgil very well may be alluding to multiple descriptions of the soul's material nature—ghostly, atomic, and even hematic—the simple fact that he conflates them by means of the Lucretian phrase (*animam diffundere*) casts the entire description in the materialistic terms of atomism. Furthermore, when this Lucretian verbal echo is taken in conjunction with the other Lucretian details concerning atomic psychology, including Mezentius' *vis animi* ("strength of spirit," 10.898) and *mentemque recepit* ("he recovered his mind," 10.899), a picture emerges in which his soul appears to be atomic in its dying moments.

3.5 CONCLUSION

As I previously suggested in my discussion of Dido's death and Turnus' humiliating removal from the battlefield and his subsequent suicide attempts, I believe that Mezentius' defeat conforms to a broader pattern in the *Aeneid*

[54] See Lucr. 3.434–39, 3.580–88, 3.698–700, and 3.1033. While the expression *anima fusa* ("the soul having been poured out") does appear outside of Lucretius in pre-Virgilian Latin literature, it does so in descriptions of the soul's *life-sustaining* dispersion throughout the body, as opposed to its exit from the corpse at the moment of death. Cf. Varro's use of *diffusast anima* ("the soul was dispersed") at *Sat. Men.* fr. 32 (Bücheler 1963: 262).

[55] Serv. ad 1.98. The two lines quoted are from *Aen.* 9.349 (death of Rhoetus) and 4.705 (death of Dido).

of associating noteworthy enemies of Trojan destiny with atomic physics. Whether one chooses to interpret the dying souls of Dido and Mezentius as literally atomic (if only for a brief moment before the poem's dominant teleological cosmology reasserts itself) or as being allegorically connected to atomic psychology, the portrayal of non-Trojan failures in atomic terms further solidifies the status of Epicurean atomism as an enemy of Roman power. A prominent critique of atomism since the time of Aristotle was to assert that non-teleological cosmologies are doomed to eventual self-destruction and disorder, and the atomic characterization of these non-Trojan deaths and setbacks imbues Aeneas' enemies with a similar sense of futility and unsustainability. It is as if personal and political challenges to Trojan (and Roman) power had inevitably collapsed into oblivion in the same manner as an atomic *mundus* must eventually dissipate back into the chaotic void of inter-cosmic space.[56]

Furthermore, in addition to the allegorical conflict between teleological cosmologies and non-teleological atomism, Aeneas' personal antagonisms can be mapped onto major historical conflicts in Rome's past. Each of the three non-Trojan characters examined in this chapter represents an ethnic group that posed significant historical challenges to the expansion of Roman power: Turnus is from Ardea, an early member of the Latin League that successfully resisted attempts at conquest by Tarquinius Superbus; Mezentius hails from Etruria, a perennial and dangerous enemy of Rome throughout the regal and early-Republican periods; and Dido founded Carthage, arguably the greatest foreign threat to Rome's existence during its initial period of expansion beyond central Italy.[57] Thus, by depicting the deaths (or near-death, in Turnus' case) of these characters with the language of atomic phenomena, Virgil aligns the enemies of Rome's historical and imperial teleology with an Epicurean cosmology that is similarly opposed to narratives of fate and fixed authority, both national and divine. As we will see in the next chapter, which looks at the role of atomism in the conclusion of the poem, these lesser episodes of allegorical defeat for atomic cosmology and its human representatives foreshadow a more permanent rejection of atomism, embodied in Turnus' defeat at the hands of Aeneas.

[56] Cf. the descriptions of cosmic dissolution at Lucr. 1.1017–18 and 1.1102–13.

[57] For Ardea's conflict with Rome during the reign of Tarquinius Superbus: Livy 1.57–60, Flor. 1.1.7, Oros. 2.4, Eutr. 1.8, and Dion. Hal. *Ant. Rom.* 4.64. See *RE* s.v. Ardea 2.

4

Turnus and the End of the Epicurean World

> *Post haec quaedam de his quae ab Homero sumpta sunt ostendam non ipsum ab Homero tulisse, sed prius alios inde sumpsisse, et hunc ab illis, quos sine dubio legerat, transtulisse.*
>
> —Macrobius, *Saturnalia* 6.1.7

> Afterwards I will show, regarding certain lines and passages from Homer, that Virgil did not copy them directly, but rather borrowed from earlier Latin poets who had already imitated these passages and whom he had doubtless read.
>
> —Macrobius

In the preceding chapters I have shown how Virgil evokes Epicurean atomic physics, along with the pessimistic view of its cosmology endorsed by prominent critics, as a foil to the divine order that underwrites Rome's future greatness. While virtually all of these allusions to Epicurean physics are crafted from Lucretian source material, Virgil consistently deploys atomism as a symbol of caprice and disorder, a strategy adopted from a long line of anti-materialist and anti-Epicurean philosophical arguments. For Aeneas, the specter of atomic chaos arises at moments of distress and hesitation, when the Trojans risk straying from their fated mission to establish the Roman people. Prior to Book 12, Virgil also associates atomism with certain enemies of Aeneas and the Trojans, depicting such characters as forces of disorder to be contained and vanquished, or as obstacles on the road to unlimited Roman power.

However, the most comprehensive and consequential moment of engagement with Epicurean physics occurs at the end of Book 12, during the duel between Aeneas and Turnus. In this chapter, I adopt a well-established

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interpretive approach to the ending of the poem, in which Aeneas' final defeat of Turnus functions as a reversal of earlier Trojan defeats, and I apply this framework to an understudied episode from earlier in *Aeneid* 12, involving Turnus and the minor Trojan character Eumedes (12.346–61). While that scene has received relatively scant commentary, it contains significant verbal and thematic connections to the climactic duel between Turnus and Aeneas that help to clarify certain aspects of their ideologically fraught final encounter, especially regarding the function of the dense cluster of Lucretian allusions that has been identified in that scene.

Scholars and readers have long noted the great variety of allusive models present in the final scene of the *Aeneid*, focusing in particular on the revisionist manner in which Virgil rewrites earlier Trojan defeats from the *Iliad*—especially that of Hector by Achilles, and of Aeneas by Diomedes—as proto-Roman successes.[1] Yet a multitude of non-Homeric sources and parallels have been catalogued as well, which both complement and complicate one's understanding of Aeneas' victory. One such source that plays an important role in coloring various Homeric allusions in *Aeneid* 12 is Lucretius' *de Rerum Natura*, to which Virgil alludes frequently and conspicuously when describing Turnus' defeat. The most comprehensive readings of these Lucretian details in the ending of *Aeneid* 12 remain those of Hardie (1986, 2009), who argues that the constellation of allusions in the final scene of the poem frames Aeneas' victory over Turnus as an inversion of Epicurean rationalism, accompanied by the restoration of traditional religious deference (*religio*) and the elevation of Roman power.[2]

While Hardie has explored this thesis along two main lines of inquiry—first, in terms of Virgil's "remythologizing" inversions of Lucretian cosmology, and second, by examining how the changing portrayal of Aeneas over the course of the poem serves to rewrite the Lucretian narrative of Epicurus' intellectual success (Lucr. 1.62–79) as a heroic triumph of divinely sanctioned power for

[1] The volume of scholarship on this point is vast. Turnus' final failed attack against Aeneas has been identified with the Homeric Aeneas (Quint 2018: 16, 189), Diomedes (Fletcher 2006: 255–56 and Knauer 1964: 316–20), and Achilles (Quint 1993: 65–76; Van Nortwick 1980: 312; and MacKenzie 1964: 3–5), as well as Palinurus (Nicoll 1988: 462–64); Remus (Nicoll 2001: 197–200); and a number of other figures. See Barchiesi 1984/2015: 69. The poem itself explicitly encourages the identification of Turnus with Homeric models at *Aen*. 6.89: *alius Latio iam partus Achilles* ("Now another Achilles has been born in Latium.")

[2] See Hardie 1986: 233–37 and 2009: 164–76, 173–79. Elsewhere, Hardie stresses that such inversions and victories ultimately remain incomplete or are compromised in various ways (1993: 2 and 1997: 148–51).

Aeneas—one aspect of his interpretation that remains ripe for further analysis is the precise manner in which Epicurean physics is depicted as harmful to various symbols of Roman legal and political authority in Book 12. In particular, although scholars have carefully considered the political and philosophical implications of the boundary stone thrown by Turnus at 12.896–907, the earlier episode with Turnus and Eumedes (12.346–61) provides an understudied point of comparison in which political imagery is paired with the language of Lucretian physics.[3] A closer examination of this parallel will add further nuance to existing interpretations of Turnus' duel with Aeneas, while enriching our understanding of how atomic imagery factors into the striking allusive reversals that occur in the brutal conclusion to the poem.

In the pages that follow, I begin by examining Turnus' successful javelin attack on Eumedes (12.353–61), which uses Lucretian language to construct a violent opposition between images of atomic physics and key symbols of Roman political authority. I then proceed to discuss another description of combat in which Virgil describes Aeneas and Turnus' devastating attacks with conspicuously Lucretian language (12.521–26), before concluding with an extended analysis of Turnus' unsuccessful stone throw against Aeneas near the end of the poem (12.896–907). In addition to illustrating how Turnus' final failed attack on Aeneas may be read as a thematically significant reversal of his earlier attack on Eumedes, I argue that the association of atomic forces with Turnus' assaults against the Roman political order suggests a broader repudiation of Lucretian cosmology as being inconsistent with the teleological pretensions of Roman mythology and Augustan political discourse. Like many claims of victory and closure in the *Aeneid*, however, this twin rejection of Turnus and Epicurean cosmology in favor of the teleology of Roman power is complicated by certain suggestive details, and when Aeneas wounds and kills his opponent, Virgil reprises language from the Eumedes scene that subtly undermines the distinction between Turnus' anti-Roman violence and Aeneas' efforts to found a new political order.

4.1 TURNUS' ATOMIC ATTACK

To begin, let us consider the scene from earlier in Book 12 when Turnus attacks and kills the Trojan warrior Eumedes. As we will see, this scene foregrounds a

[3] For the political implications of the boundary stone thrown by Turnus, see Huskey (1999), cited in n. 59, and Tarrant 2012: 321–22.

cosmological dimension to the fighting in Latium by allusively comparing Turnus' assault to the motion and collision of Lucretian atoms. Eumedes, the son of the ill-fated Dolon of *Odyssey* 10, appears shortly after Aeneas is wounded and forced to withdraw from the battlefield, a setback that temporarily yields the initiative to Turnus and his Italian allies. In the midst of a general slaughter, Turnus spies Eumedes from a distance in his chariot and promptly wounds him with a javelin:

> hunc procul ut campo Turnus prospexit aperto,
> ante levi iaculo longum per inane secutus
> sistit equos biiugis et curru desilit atque
> semianimi lapsoque supervenit, et pede collo
> impresso dextrae mucronem extorquet et alto
> fulgentem tingit iugulo atque haec insuper addit:
> "en agros et, quam bello, Troiane, petisti,
> Hesperiam metire iacens; haec praemia, qui me
> ferro ausi temptare, ferunt, sic moenia condunt." (12.353–61)

> When Turnus glimpsed [Eumedes] from afar on the open plain, he first threw a light javelin at him through the long void, then halted his twin horses and leapt down from the chariot and stood over his fallen, half-dead body. With one foot pressed to his neck, he wrested the sword from his right hand and submerged its gleaming blade in the depths of his throat, adding these words: "Behold, Trojan, the fields of Hesperia that you sought in war; measure them out when you lie dead. These are the prizes for those who have dared to test me with the sword; thus do they found their walls."

Virgil's description of the javelin's flight—"he threw a javelin through the long void" (*iaculo longum per inane secutus*, 12.354)—echoes a distinctive Lucretian phrase that twice describes the chaotic dispersal of matter through the void following the cataclysmic destruction of an atomic cosmos: "dispersed through the great void" (*magnum per inane soluta*, Lucr. 1.1018, 1.1103).[4] Although Hardie notes the Lucretian resonance of "void" (*inane*), many commentators on this line interpret that word as simply a poetic synonym for "air" (*aer*); not a deliberate evocation of Epicurean physics, but an

[4] The *per inane* expression also occurs in Lucretius with a number of other modifying adjectives and adverbs, depending upon which aspect of the void the poet wishes to stress—*vacuum* ("empty"): 2.151, 2.158, 2.202, 6.838; *magnum* ("great"): 1.1018, 1.1103, 2.65, 2.105, 2.109; *profundum* ("deep"): 1.1108, 2.96, 2.222; *quietum* ("calm"): 2.238; *rectum* ("straight"): 2.217, 2.226.

instance of Virgil adopting Lucretian phrasing while rejecting its philosophical associations.[5]

Yet there are strong reasons for supposing a more meaningful level of engagement with the atomic sense of this line, not just in Virgil's deployment of the phrase "through the void" (*per inane*), but in the construction of line 12.354 as a whole. In particular, the syntax, meter, and placement of the expression "he threw a javelin through the long void" (*longum per inane secutus*)—consisting of an adjective, "through the void" (*per inane*), and a trisyllabic perfect participle at line-end—recall an earlier adaptation of Lucretius by Virgil at the start of the cosmological "Song of Silenus" in *Eclogue* 6:

> namque canebat uti magnum per inane coacta
> semina terrarumque animaeque marisque fuissent
> et liquidi simul ignis. (*Ecl.* 6.31–33)
>
> For he sang of how the seeds (atoms) of earth, spirit, sea, and limpid fire had been driven together through the great void.

According to Servius, Virgil refers here to "the void" (*inane*) and "atoms" (*semina*), the materialist building blocks of Epicurean physics.[6] While more recent scholarship has shied away from Servius' thoroughly Epicurean and biographical reading of the miniature cosmology in *Eclogue* 6, emphasizing instead its idiosyncratic and syncretic character, there is a general consensus that the phrase "driven together through the great void" (*magnum per inane coacta*) refers unambiguously to Epicurean atomism, on the basis of its similarity to various Lucretian versions of the same phrase.[7] Therefore, when Virgil deploys a syntactically similar version of this phrase in the attack on Eumedes, "he threw a javelin through the long void" (*longum per inane secutus*, *Aen*. 12.354), the line evokes Lucretius' "dispersed through the great void" (*magnum per inane soluta*, 1.1018, 1.1103) as well as Silenus' "driven together through the great void" (*magnum per inane coacta*, *Ecl*. 6.31), both

[5] For the Lucretian flavor of this word, see Hardie 2009: 174. The more popular interpretation of *inane* as a synonym for *aer* goes back to Servius' gloss on 12.354: *LONGUM PER INANE hoc est per longum spatium* ("*THROUGH THE EMPTY VOID*: that is, through the long space"). See, e.g., Tarrant 2012: 178 (at the place) and Traina 1997: 134.

[6] See Servius' note on *Ecl*. 6.31.

[7] See C-N ad *Ecl*. 6.31–40, as well as Lieberg 1981: 228; Saint-Denis and Lesueur 1992: 69; and Clausen 1994: 176.

of which describe, or at the very least strongly evoke, atomic motion. Given that Virgil already associates the syntactic combination of "through the void" (*per inane*) and a perfect participle with atomism in *Eclogue* 6, and because we possess no other pre-*Aeneid* examples of this particular construction outside of Lucretius, it stands to reason that Virgil's readers would have recognized in Turnus' javelin throw a brief but pointed allusion to the motion of Epicurean atoms in the void.

Nevertheless, despite the close metrical and syntactic correspondence to Lucretius, commentaries on *Aeneid* 12 have downplayed the Lucretian connection, and Tarrant argues against an Epicurean reading of this line on semantic grounds: "*inane* as a noun can evoke Lucretian descriptions of the void (as in *Ecl.* 6.31–32 *magnum per inane coacta* | *semina*), but here it is a loftier equivalent of *aer*" (2012: 178).[8] Although Tarrant does not elaborate upon why this must be the case, the assumption about the correct meaning of "void" (*inane*) in this context is worth investigating. Indeed, beyond a brief note by Hardie on the Eumedes passage (2009: 174 n.69), few other commentators accept that Virgil's text evokes the Epicurean definition of "void" (*inane*), which both the *TLL* and *OLD* restrict to explicitly philosophical contexts such as in *de Rerum Natura*, Cicero's philosophical dialogues, or the cosmological portion of *Eclogue* 6.[9] However, we ought not assume that the definitions of *inane* as "void" and as a poetic synonym for "air" are mutually exclusive in Virgil, semantically either/or. In the context of Turnus' attack on Eumedes, "void" (*inane*) may literally denote the air through which his javelin flies, but that interpretation does not rule out the possibility that it also evokes the Epicurean void in an allegorical or allusive fashion. In fact, as closer examination of the history of the word "void" (*inane*) will show, the noun form refers exclusively to the void of atomism in pre-Augustan literature, and there is reason to suppose that it did not come to mean "air" in a philosophically unmarked way until *after* Virgil, perhaps even as a result of his novel usage in Book 12 of the *Aeneid*.[10]

The earliest alleged use of the term for "void" (*inane*) is preserved in Persius 1.1, a line attributed by certain medieval scholia to Lucilius, the

[8] Cf. Scarcia 1984: 139 n. 267, who interprets *inane* in *Aen*. 12.354 and 12.906 as a "debased echo" of *Ecl*. 6.31.

[9] *TLL* s.v. *inane* (n.) 1*β*; *OLD* s.v. *inane* (n.) C.

[10] Lucretius himself is always careful to distinguish between elemental or material "air" and the empty space of the void; see 1.426: *locus ac spatium, quod inane vocamus* ("place and space, which we call void").

2nd-century BCE satirist: "O worries of men, o how much vanity there is in things!" (*o curas hominum, o quantum est in rebus inane*).[11] However, this attribution is complicated by textual difficulties in the manuscripts that contain the scholia, and several scholars have argued that the line does not (or cannot) allude to Lucilius, but rather to Lucretius.[12] If this is the case, as it seems to be, then Persius' use of the word for "void," which in context must mean something like "vanity," is clearly a pun on the Lucretian sense of the word, referring to the fact that Lucretius describes all material things (*res*) as a mixture of atoms and void.[13] Leaving aside the dubious attribution of the allusion in Persius 1.1 to Lucilius, the only other pre-Virgilian writers who provide extant examples of the noun for "void" (*inane*) are Lucretius and Cicero. Moreover, in both of those authors the substantive usage refers unambiguously and consistently to the Epicurean void, since the word occurs only in discussions of Epicurean philosophy.[14]

Although we do not have any earlier examples, Cicero provides indirect evidence of the fact that his contemporaries also used the word *inane* to denote "the void." In a section of *de Fato* in which Cicero seeks to clarify different meanings of the phrase "without cause" (*sine causa*), he makes an analogy to the discrepancy between the colloquial and philosophical meanings of the word "empty": "When we say a vessel is 'empty,' we are not speaking like the natural philosophers, for whom 'empty' means 'empty nothingness,' but in the way that we say, for example, that a vessel is 'empty' of water, wine, or oil" (*cum vas inane dicimus, non ita loquimur, ut physici, quibus inane esse nihil placet, sed ita, ut verbi causa sine aqua, sine vino, sine oleo vas esse dicamus*, Cic. *Fat*. 24).

This passage is interesting for two reasons. First, it is the earliest source that explicitly addresses the distinction between the adjectival, colloquial meaning of the word ("empty of tangible contents") and the substantive, philosophical meaning ("empty nothingness" or "void"). Second, Cicero's mention of natural philosophers (*physici*) indicates that others

[11] Although the comment is appended to line 1.2, it has long been understood to refer to Persius 1.1. See Zetzel 1977: 40.

[12] For summary of the history of this question, along with relevant bibliography, see Sosin 1999: 281–87 and Hendrickson 1928: 98–99. For fuller discussion of the textual problems in the scholia, including the idea that *Lucilii* in the scholia is a corruption of *Lucretii*, see Zetzel 1977: 41–42.

[13] Lucr. 1.382: *esse admixtum dicundumst rebus inane* ("it must be stated that the void is intermixed with things").

[14] Word search performed by using *PHI* database.

had already been using the term in their own lectures or writing in this philosophical sense. While Cicero could have copied the substantive usage from Lucretius, we know from elsewhere in his writings that other Roman Epicureans had been writing philosophy in Latin since the early 1st century BCE, and that these early writers were already interested in translating Greek concepts with novel uses of existing Latin vocabulary.[15] In the absence of more concrete evidence, it is conceivable that the substantive use of the word for "void" (*inane*) originated among early Italian Epicurean writers seeking a recognizable Latin word to render Epicurus' Greek term for the void (τὸ κενόν).

Although our evidence for the semantic range of "void" before Virgil is limited in key respects, the examples that we do have paint a clear picture: prior to Turnus' attack on Eumedes at *Aen*. 12.354, every extant instance of the word as a substantive refers to "the void," and nowhere is it used as a synonym of "air."[16] In contrast, many of the post-Virgilian uses of the word "void" as a synonym for air pointedly recall either *Aen*. 12.354 or Turnus' stone throw at 12.906, suggesting that later writers engaged with phrase "through the void" (*per inane*) as a Virgilian topos of epic combat and swift movement, rather than as a reference to Lucretian natural philosophy.[17] For Virgil, however, steeped in Hellenistic critical traditions that emphasized allegorical readings of Homer, epic combat and natural philosophy need not be disjunctive.[18] Of course, "the void" literally means "the air" here, because the space between Turnus and Eumedes is not a perfect vacuum, totally devoid of air or any errant specks of material. But in adapting the specialized Epicurean term for the void in such a way, perhaps for the first time in Latin epic, *Aen*. 12.354 adumbrates a broader argument

[15] Such Roman Epicureans include Amafinius, Rabirius, and "many imitators" (*multi eius aemuli, Tusc*. 4.3.6–7; *Ac.* 2.5–6). For Cicero's engagement with the vocabulary of these earlier Epicureans, see Reinhardt 2005: 158–62.

[16] Of Virgil's contemporaries, Horace is the only possible outlier, where *inane*, as in Persius 1.1, may mean something like "vanity": *inane abscindere soldo*? ("to separate the void from what is solid," *S*. 1.2.111). But even this metaphorical usage evokes Lucretian materialism, as argued by both Brown (1993) and Gowers (2012) in notes on *S*. 1.2.111. Gowers dates the publication of Horace's first book of *Satires* to 36/35 BCE.

[17] See Sil. *Pun*. 10.150–52; Ovid *Met*. 4.718; Stat. *Theb*. 1.310 and 9.832; Amm. Marc. 17.4.15; and Oros. 1.35.17, among others. It seems likely that Virgil's influence on Latin epic idiom was such that many phrases in Virgil, originally of Lucretian provenance, were adopted by later writers as generically epic language without intending to evoke Epicurean philosophy.

[18] See Gale 2000: 232–34, who notes that Lucretius makes frequent use of martial imagery to describe the collisions of atoms in *de Rerum Natura*, and Feeney 1991: 8–11, discussing natural-philosophical interpretations of combat in Homer. On Virgil's use of Hellenistic Homeric scholia, see Schlunk (1974).

about cosmology and Roman power, conflating an attack by Aeneas's enemy with a particular model of physics that is employed here as a symbol of disorder.

So in what exact sense does Turnus' javelin throw suggest the disorderliness of atomic cosmology, and what does his act imply about the broader struggle against the Trojans in *Aeneid* 12? First of all, it is important to recognize that atomic matter is imagined in this scene as an instrument of violence. According to Epicurean physics, the random bombardment of atoms from the void can cause a compound body to collapse and disintegrate back into its component parts, and Lucretius places great emphasis on these collisions in his explanations of various natural phenomena. Yet in and of themselves, atoms are not necessarily destructive, and Lucretius repeatedly stresses their constructive potential through the use of positive social and political metaphors, such as "council" (*concilium*) and "gathering" (*coetus*), to describe the process of atoms linking together to form larger bodies of matter.[19] However, in the Eumedes scene, Virgil ignores the creative possibilities of atomism, using Lucretian phrasing to associate the motion of atoms with a deadly act of violence against a Trojan character. Furthermore, as the rest of the scene reveals, Turnus links this personal assault to a broader attack on the political and cosmic foundations of Roman power.

The idea that this particular atomic javelin throw represents an attack on Roman political order more generally finds support in Turnus' threatening boast as he stands over the corpse of Eumedes. Here Turnus explicitly expands the scope of his attack on Eumedes to encompass the entire colonizing mission of the Trojans in Italy:

> "en agros et, quam bello, Troiane, petisti,
> Hesperiam metire iacens; haec praemia, qui me
> ferro ausi temptare, ferunt, sic moenia condunt." (12.359–61)

> "Behold, Trojan, the fields of Hesperia that you sought in war; measure them out when you lie dead. These are the prizes for those who have dared to test me with the sword; thus do they found their walls."

[19] See Cabisius 1984–85: 109–10; Asmis 2008: 141–49; and Johnson 2013: 101–2. Fowler 1989: 147 notes that the overall "republicanism" of Lucretius' atomic metaphors casts Epicurean physics in a favorable light.

With this challenge, Turnus singles out two quintessentially Roman acts of political and social order, threatening those who would undertake land surveying (*agros metire*) and the founding of city walls (*moenia condere*) with violent death.[20] For the Romans, the measurement and division of conquered lands and colonies were cosmological concerns as well as political ones, since the layout of a settlement was theoretically supposed to mirror the order of the cosmos. In a treatise on Roman land surveying from the imperial period, the writer Hyginus attributes the origins of land surveying to the arrangement of the heavens, explaining that agricultural demarcations ought to reflect cosmological ones, such as the orbit of the sun and the alignment of the earth's axis.[21] In following these cosmological principles, a well-ordered Roman town mimics a well-ordered cosmos. If such procedures were not followed—for example, if the orientation of the central road (*cardo*), named after the polar "hinge" of the world, lay east-west rather than north-south—then the town would fail to achieve the harmony and stability of the cosmos, resembling instead "the measurement system of *another world*."[22] By pitting the physical blows of atoms, embodied in Turnus' javelin throw, against land surveying, an act that harmonizes Roman legal boundaries with the structure of the universe, Virgil outlines an allegorical conflict that suggests that atomism is an instrument of cosmological disorder aimed against Roman political stability.

The second object of Turnus' menacing threat, the laying of city walls, illustrates a similar point. Walls serve a powerful symbolic function in the *Aeneid* as a metonymy for the foundation of cities, particularly in prophecies predicting the eventual founding of Lavinium and Rome.[23] While this focus

[20] For the identification of *metire* ("measure") with land surveying, see Servius' note on 12.360: *metiuntur autem agros qui colonis adsignant: inde enim sarcasmos factus est. nam consuetudo erat ut victores imperatores agros militibus suis darent, ut in historiis legimus* ("The ones who 'measure' the fields are those who allot them to colonists. This was said sarcastically, for it was the custom of victorious generals to give farmland to their soldiers, as we read in the histories").

[21] Campbell 2000: 134. According to Campbell, the *Corpus Agrimensorum Romanorum* containing Hyginus' work was probably compiled in the 5th century CE, but preserves works from much earlier. The dating of these texts is discussed at Campbell 2000: xxvii–xliv.

[22] Campbell 2000: 144: *potest dici mensura orbis alterius aut certe sinistra, hoc est inversa. cum ipsa kardinum appellatio a kardine mundi nominetur, quare ab oriente in occidentem dirigatur, nulla est ratio* ("[This layout] can be described as the measurement system of another world, or indeed definitely reversed, that is, the opposite way round. Since the very name of the *kardines* is taken from the 'hinge' of the world, there is no basis for its running from east to west." *Hygini Constitutio* <*Limitum*>). Translation adapted from Campbell 2000: 145.

[23] See, for example, *Aen*. 1.6–7: *genus unde Latinum/ Albanique patres atque altae moenia Romae* ("From where the Latin people came, and the Alban fathers, and the walls of lofty Rome"), as well as 1.258–59: *cernes urbem et promissa Lauini/ moenia* ("You will look upon the city of Lavinium and its promised walls"), and 5.737: *tum genus omne tuum et quae dentur moenia disces* ("Then you will learn of all your people, and of the walls that are granted to you").

upon city walls may gesture back to the famous walls that defended Troy in the *Iliad*, Rome's own traditions provide a more immediate model for understanding the ramifications of Turnus' threat. Defensive walls play a vital role in Rome's mythic early history and, according to different versions of the story in the Augustan period, their construction led directly to the act of fraternal bloodshed upon which Rome was founded.[24] In addition to keeping foreign enemies at bay, Rome's early walls also determined the traditional circuit of the pomerium, the legal city limits within which magistrates and generals were compelled to relinquish their command after campaigning abroad.[25] By marking the boundary between the city's inviolable domestic space and the outside world, which was subject to the full power and exercise of Roman military might, Rome's walls deeply influenced how the Roman imagination ordered its universe.[26]

Nothing illustrates this cosmological significance better than the passage in *de Rerum Natura* in which Lucretius compares Epicurus' intellectual accomplishment to that of a victorious Roman general returning to the city for his triumph.[27] Epicurus, who endeavored to prove that the universe has no physical outer limits, is depicted as having crossed beyond the "flaming walls of the world" to bring back the spoils of his intellectual victory:

> ergo vivida vis animi pervicit et extra
> processit longe *flammantia moenia mundi*
> atque omne immensum peragravit mente animoque,
> unde refert nobis victor quid possit oriri,
> quid nequeat, finita potestas denique cuique
> quanam sit ratione atque alte terminus haerens.
> quare religio pedibus subiecta vicissim
> obteritur, nos exaequat victoria caelo. (Lucr. 1.72–79)

[24] After offering one version of Remus' death, Livy reports the "more common story" (*volgatior fama*) that Romulus killed his brother in a rage for jumping over his incipient city walls: *sic deinde, quicumque alius transiliet moenia mea!* ("This is what will happen to anyone else who climbs over my walls!" 1.7). Dionysius of Halicarnassus (*Ant. Rom.* 1.87) and Ovid (*Fast*. 4.819–48) both record a similar version in which it is Celer, the overseer responsible for constructing Rome's walls, who killed Remus for this transgression.

[25] Both Livy (1.44) and Varro (*L*. 5.143; *R*. 2.1.9–10) provide etymologies for *pomerium* that are based on *moenia* ("walls"). For further discussion, see Woodard 2006: 152–53 and Fantham 1998: 244–46.

[26] See Woodard 2006: 218–19.

[27] See Harrison 2016: 38–40 and Buchheit 1971/2007: 106–7, along with Bailey 1947: 612. For the importance of Virgil's appropriation of this Lucretian theme (and its accompanying imagery) in the *Aeneid*, see Hardie 2009: 159–60 and 1986: 194–200.

> Therefore the lively strength of his mind has won and has proceeded far beyond *the flaming walls of the world*; he has traveled the whole immensity of the universe with his intellect and mind, whence he brings back to us, as a victor, information about what can arise and what cannot, and the reason that each thing has limited power and a deep boundary stone. Wherefore religion is cast beneath his feet and trampled, and his victory exalts us to the sky.

This passage stands out as one of the earliest extant examples of a Latin poet conflating the city of Rome with the world as a whole, and the conspicuous triumphal imagery leaves no doubt as to which city's walls Lucretius based his "walls of the world" on. However, some clarification is in order about what the Epicureans mean by "world" (*mundus* or κόσμος). Although the universe itself is boundless and contains an infinite number of atoms, it is inhabited by an infinite number of discrete worlds like our own, each wrapped in a protective sphere of fiery atoms (called the πέρας by Epicurus) that prevents that world from spilling its material contents into the void.[28] This outer boundary, which Lucretius calls the "walls of the world" (*moenia mundi*), is all that stands between the orderly *mundus* and the chaos of the outside void, the loss of which leads to global collapse and dissolution.[29] When Epicurus returns to the walled world in the prologue of Book 1 of *de Rerum Natura* to proclaim his philosophical discoveries, he recrosses a boundary that is metaphorically political, yet literally cosmological. Lucretius' image is effective precisely because it maps Epicurean cosmology onto a preexisting Roman cultural landscape in which the walls of the city serve the function—simultaneously religious, political, and cosmological—of distinguishing Rome from the rest of the world.

We may now summarize the preceding points about Turnus' attack on Eumedes and its broader implications for cosmological themes in the *Aeneid*. By means of a pointed allusion to Lucretian physics, Turnus' javelin mirrors the action of atomic matter striking at a larger compound. As the Italian prince's subsequent challenge to would-be Roman land surveyors and city founders reveals, his act represents both a political challenge and a cosmic one to quintessential Roman symbols of civic order. This opposition between atomism, used here to convey a sense of cosmological disorder, and conventional symbols of Roman political power will subsequently play a crucial part

[28] See Epicurus *Ep. Pyth.* 88–89 and Lucr. 5.449–54.
[29] Such a scenario is imagined in memorable detail at Lucr. 1.1102–3, and again at 2.1144–45.

in the final duel of the poem, wherein Turnus throws another atomic projectile, but with a radically different result.

4.2 TURNUS, AENEAS, AND THE ATOMIC BATTLEFIELD

Admittedly, *longum per inane* ("through the long void") is only one Lucretian detail amid a crowd of other combat scenes in Book 12 with no obvious connection to atomism. However, Virgil associates Epicurean physics with wanton violence in a similar fashion about 200 lines later, by means of an extended simile that singles out Aeneas and Turnus as they fight among the rank and file:

> ac velut immissi diversis partibus ignes
> arentem in silvam et virgulta sonantia lauro,
> aut ubi decursu rapido de montibus altis
> dant sonitum spumosi amnes et in aequora currunt,
> quisque suum populatus iter: non segnius ambo
> Aeneas Turnusque ruunt per proelia. (12.521–26)

> Just like fires let loose from different sides into a burning forest and thickets of crackling laurel, or when, in a swift descent from the lofty mountains, frothy rivers roar and run into the sea, and each makes its own path of devastation, no more sluggishly did Aeneas and Turnus rush through the battle.

As Tarrant and others point out, the river element of this description is modeled on two similes from the *Iliad*. The first compares the noise of combat to the force of a rushing mountain river:

> ὡς δ᾽ ὅτε χείμαρροι ποταμοὶ κατ᾽ ὄρεσφι ῥέοντες
> ἐς μισγάγκειαν συμβάλλετον ὄβριμον ὕδωρ
> κρουνῶν ἐκ μεγάλων κοίλης ἔντοσθε χαράδρης,
> τῶν δέ τε τηλόσε δοῦπον ἐν οὔρεσιν ἔκλυε ποιμήν·
> ὣς τῶν μισγομένων γένετο ἰαχή τε πόνος τε. (*Il.* 4.452–56)

> Just as snow-swollen winter streams, rushing down from the mountains, join together in a meeting place and the mighty waters from their great

sources join in a hollow gully, and a shepherd hears their thundering far off in the mountains, thus was the din and toil of the men fighting together.

In the second simile, Homer compares the noise of Trojan horses to the thundering of rivers swollen by rain:

> ὡς δ᾽ ὑπὸ λαίλαπι πᾶσα κελαινὴ βέβριθε χθὼν
> ἤματ᾽ ὀπωρινῷ, ὅτε λαβρότατον χέει ὕδωρ
> Ζεύς, ὅτε δή ῥ᾽ ἄνδρεσσι κοτεσσάμενος χαλεπήνῃ,
> οἳ βίῃ εἰν ἀγορῇ σκολιὰς κρίνωσι θέμιστας,
> ἐκ δὲ δίκην ἐλάσωσι θεῶν ὄπιν οὐκ ἀλέγοντες·
> τῶν δέ τε πάντες μὲν ποταμοὶ πλήθουσι ῥέοντες,
> πολλὰς δὲ κλιτῦς τότ᾽ ἀποτμήγουσι χαράδραι,
> ἐς δ᾽ ἅλα πορθυρέην μεγάλα στενάχουσι ῥέουσαι
> ἐξ ὀρέων ἐπικάρ, μινύθει δέ τε ἔργ᾽ ἀνθρώπων·
> ὣς ἵπποι Τρῳαὶ μεγάλα στενάχοντο θέουσαι. (*Il.* 16.384–93)

> Just as the whole dark earth is heavy from a furious storm on harvest day, when Zeus has poured down the most turbulent water, grievously angry at men who decide their wicked laws by force in the agora and drive away justice, disregarding the vengeance of gods; all the rushing rivers swell and then the torrents plow many hillsides, and they thunder greatly, rushing headlong down from the mountains to the billowing sea, and the works of men are diminished; thus do the Trojan horses thunder greatly as they rush forth.

Both Homeric similes describe rivers flowing down from mountains, and Virgil forms his own image by fusing together related details from each passage. Behind this synthesis, however, lies a third natural-philosophical model, a passage in *de Rerum Natura* where Lucretius offers proofs based on natural phenomena for the existence of invisible atomic bodies:[30]

> sunt igitur venti ni mirum corpora caeca
> quae mare, quae terras, quae denique nubila caeli
> verrunt ac subito vexantia turbine raptant,

[30] Although Hardie 1986: 207–8 compares Lucr. 1.277–89 to *Il.* 5.87–90, *Aen.* 2.496, and 8.726, he does not extend the comparison to the simile at *Aen.* 12.521–26.

nec ratione fluunt alia stragemque propagant
et cum mollis aquae fertur natura repente
flumine abundanti, quam largis imbribus auget
montibus ex altis magnus decursus aquai
fragmina coniciens silvarum arbustaque tota,
nec validi possunt pontes venientis aquai
vim subitam tolerare: ita magno turbidus imbri
molibus incurrit validis cum viribus amnis,
dat sonitu magno stragem volvitque sub undis
grandia saxa, ruit qua quidquid fluctibus obstat. (1.277–89)

Therefore, unsurprisingly, invisible bodies of wind exist that sweep the sea, the land, and the clouds of the sky, and jolt and snatch them up in a sudden whirlwind. They run and spread their destruction in the same way that the soft nature of water is suddenly carried away by a swelling river, which a great descent of water from the tall mountains increases after heavy rains, smashing together broken branches and entire trees, and strong bridges are unable to endure the sudden force of the coming water. In this way, rough from the great rain, the river runs against the piles with much power; it causes destruction with a great noise and rolls mighty rocks beneath its waves, and it rushes with its waves over anything in its way.

Although Virgil compresses Lucretius' description of rivers from ten lines down to two, virtually every word in the Virgilian passage has a close parallel in the Lucretian text:

decursu rapido (*Aen*. 12.523) < *decursus aquai* (Lucr. 1.283)
de montibus altis (*Aen*. 12.523) < *montibus ex altis* (Lucr. 1.283)
dant sonitum (*Aen*. 12.524) < *dant sonitu magno stragem* (Lucr. 1.288)
amnes . . . currunt (*Aen*. 12.524) < *incurrit . . . amnis* (Lucr. 1.287)

Here Virgil produces a thorough *contaminatio* of epic simile and scientific argument from analogy. The theme and martial context of the simile are immediately recognizable as Homeric, but Virgil filters his comparison through the language of a Lucretian passage with no explicit connection to combat. On its surface, we might say that Virgil's reworking of the simile is Lucretian in form and Homeric in spirit.

Before we turn to the Epicurean implications of the Virgilian passage, it will be useful to consider the relationship of the Lucretian description to its Homeric antecedents. For the Lucretian passage that argues for the existence of invisible bodies appears to engage with one or both of the Iliadic similes identified (*Il.* 4.452–56 and 16.384–93) as sources for Virgil's simile.[31] As discussed previously, Hardie describes Lucretius' relationship to Greek literary models as a process of demythologization, or what he calls "Lucretius' peculiar tactic of getting inside his opponents' positions and then evacuating them of their prior content to refill them with Epicurean doctrine" (1986: 11).[32] This approach to literary allusion often involves reinterpreting awe-inspiring natural phenomena as predictable, mechanistic consequences of atomism, and we can see this process at work in the case of the two Iliadic river similes in question. While Homer attributes thunder and torrential rainfall to an angry Zeus in the second simile (*Il.* 16.384–93), Lucretius reimagines the same destructive swelling of water as a consequence of *corpora caeca*, invisible atoms in motion. This rationalizing style of allusion creates a two-way interpretive relationship between Lucretius and Homer. On the one hand, it bestows epic grandeur and dignity upon Lucretius' scientific text. On the other hand, it invites the reader to retroactively consider the Homeric source text from the perspective of Epicurean atomism—Lucretius becomes more Homeric and Homer becomes more Lucretian.[33] In this second, retroactive sense, it can be read as an allusion that specifically encourages philosophical reflection and the application of Epicurean physics to an epic text.

As detailed in the Introduction to the present work, Hardie further contends that Virgil systematically remythologizes such passages when alluding to Lucretius in the *Aeneid*, stripping them of their Epicurean explanations and reintroducing the active interference of the gods.[34] Hardie argues this case convincingly for many passages in the *Aeneid*, but I believe that Virgil is doing something quite different in the simile at *Aen.* 12.521–26. First of all, although Virgil makes no explicit mention of Lucretius' atomic *corpora* in the description of rushing water, he similarly passes over

[31] Murley 1947: 339. Both Gale 2000: 237 and Leonard and Smith (1942) at the place cite *Il.* 5.87–92 as another possible source for the Lucretian passage. Although that simile does describe flooding, it lacks any reference to mountains, making it less relevant for the Virgilian simile in question. For a general treatment of Lucretian imitation of Homer, see West 1969: 23–34.

[32] See p. 54.

[33] For further discussion of the complexities involved in interpreting these kinds of multilayered allusions (in which an author may be alluding not just to Lucretius and Homer, but to Lucretius *and Lucretius' own interpretation of Homer*), see Hinds 1998: 141–42.

[34] Hardie 1986: 233–37.

Homer's Zeus, who features prominently in the second Iliadic simile as the cause of heavy rain and flooding (*Il.* 16.384–93). In Hardie's most convincing examples of remythologizing allusions, the divine explanation originally rejected by Lucretius is made far more obvious in the Virgilian reworking.[35] Yet in the simile at *Aen.* 12.521–26, Virgil offers no opinion on the cause of the river's strength, be it material or divine. In the absence of such an opinion, or any other details suggesting divine causation, it would be unsatisfactory to describe Virgil's technique in this simile as simply remythologizing.

Instead, I believe that the key to understanding this double allusion lies in its combination of Homeric context and Lucretian phrasing. In terms of substance and context, Homer is clearly the structural, or code, model for Virgil: the two Iliadic similes provide the battlefield setting, the emphasis on noise, and the comparison to rivers. While Lucretius' allusion (1.277–89) is divorced from this original battlefield setting, it invites us to reimagine the Homeric descriptions of rivers from an atomic perspective, and to reflect more generally on the possibility of applying Epicurean physics to the world of epic. Virgil, by retaining the Homeric battlefield context yet cobbling together his description nearly word for word from the Lucretian passage, does not necessarily invert Epicurean doctrine here, but can be understood instead as encouraging readers to consider the relationship of Lucretius to the Homeric source text; that is, he recalls Lucretius' strategy of demythologization without refuting it. In the absence of any mention of gods, whether explicit or implied, the overwhelmingly Lucretian diction hints at a latent atomic explanation, imported from Lucretius' rushing rivers, for the whirlwind of destruction caused by Turnus and Aeneas.

A further reason to read Epicurean physics into the simile at *Aen.* 12.521–26 is that it anticipates a cosmological dimension to Turnus' fight with Aeneas that will reappear in their final confrontation. Virgil does not simply equate the destructive power of Turnus and Aeneas with the force of nature, but rather "Lucretianizes" his Homeric simile in a fashion that evokes an *atomic* vision of nature. As we have seen in Chapters 2 and 3, Virgil consistently emphasizes the disorderly potential of atomic motion when he is alluding to Epicurean physics in the *Aeneid*, and this bias toward the chaotic and destructive aspects of atomism is echoed in other Roman sources from the 1st century BCE. Lucretius himself offers a model for characterizing atoms

[35] As in the first example of remythologization cited by Hardie, in which Aeneas' spear is compared to a thunderbolt, the traditional instrument of divine retribution (1986: 177–80).

as warlike in at least one passage, in which the atoms of hard substances resist one another like soldiers arrayed in a battle line.[36] The latent atomism of Virgil's river simile taps into this idea, associating the wanton destruction of the combatants with the lawless collision of atoms. However, unlike the earlier Eumedes passage, which attributes atomistic violence exclusively to Turnus, the mountain-river simile loosely associates both Turnus *and* Aeneas with Lucretian physics.

As Richard Thomas and others have noted, the subtle erasure of distinctions between Aeneas and Turnus constitutes one of the more striking features of Book 12, leading to an unusual "double *aristeia*" for the two heroes at 12.500–47 that is unparalleled in the *Iliad*.[37] I would argue that this "doubling" of Aeneas and Turnus extends to the atomic resonance of the river simile previously discussed, with important implications for the conclusion of the poem. While the earlier attack on Eumedes firmly associates atomic disorder with Turnus, the open-field fighting at the midpoint of Book 12 represents a moment of narrative and thematic balance, in which the opposing heroes are portrayed in remarkably equal terms, both implicated in a kind of cosmic violence allusively connected to Lucretian physics. When Turnus and Aeneas face each other again at the end of the poem, we will see that the imagery of atomic violence once again becomes associated predominantly—although not exclusively—with Turnus and his attacks on the future Roman political order. As I explain in the following sections, Aeneas' defeat of Turnus therefore represents a qualified defeat of atomism as a symbol of disorder, albeit one that suggests troubling similarities between Aeneas and Turnus' respective uses of violence for political ends.

4.3 TURNUS' ATOMIC ATTACK, REVISITED

After a series of dramatic reversals of fortune between the Trojans and Latins in the first two thirds of Book 12, Aeneas returns to the field of battle, shifting the momentum of fighting decisively in favor of the Trojans and forcing his Italian opponents back to the walls of Ardea. When Turnus and Aeneas

[36] Lucr. 2.447–50. See Chapter 3, n. 20.

[37] Thomas 1998: 275–77. See similar remarks by Quint 2018: 5, as well as by Hardie 1993: 22, who argues that this process is necessarily dependent upon the focus of the reader: "It is a matter of perspective: from some angles Aeneas and Turnus are sharply distinguished, from others they merge into one figure, the more so the more closely they come into contact." Cf. Tarrant 2012: 219 for a list of passages in Book 12 that are said to undermine the reader's sympathy for Turnus.

finally encounter each other again before the walls of the city, their duel initially follows the template of Hector's flight from Achilles in *Iliad* 22 (131–76), with Turnus fleeing around the walls after an initial failed attack (*Aen*. 12.728–65). Following a narrative interlude, during which Jupiter and Juno strike a deal to unite the Trojans and Italians under the sole leadership of Aeneas, the focus returns to the battlefield, where Turnus faces his enemy alone, bereft of divine aid. In this momentous final scene Virgil synthesizes a number of Homeric and Lucretian allusive models, systematically imbuing the Homeric material with Epicurean connotations. Moreover, as Hardie has argued previously with respect to a number of details in this scene, the dense network of allusions to Epicurean teachings on physics, cosmology, history, and perception links Turnus' failure to an atomic eschatology of decline and dissolution that suggests a parallel failure for the Epicurean worldview.[38] In the section that follows, I further explore the ideological implications of these Lucretian allusions as they pertain to atomism, with particular emphasis upon how they can affect our interpretations of seemingly innocuous Homeric details.

After a brief exchange of taunts (12.887–95), the final confrontation between Aeneas and Turnus begins in earnest when the latter spies a nearby stone to use as a weapon:

> nec plura effatus saxum circumspicit ingens,
> saxum antiquum ingens, campo quod forte iacebat,
> limes agro positus litem ut discerneret arvis.
> vix illum lecti bis sex cervice subirent,
> qualia nunc hominum producit corpora tellus. (12.896–900)

> Speaking no more, he spies a giant rock, an ancient giant rock, which by chance was lying on the plain, placed there as a boundary to decide disputes over fields. Twelve picked men could scarcely lift it on their necks, with the sort of bodies of humans the earth now produces.

As a number of commentators have observed, although stone throwing occurs a number of times in Iliadic combat, Turnus' attack seems to evoke two such confrontations in particular: Diomedes' defeat of Aeneas with a

[38] See Hardie 2009: 178: "Aeneas' enemy Turnus collapses in disorderly fragments of the Lucretian project." Hardie further observes that Aeneas' corresponding Epicurus-like triumph is itself compromised by his apparent lack of serenity in the final scene (178–79).

stone at *Il.* 5.302–10, and Aeneas' abortive stone attack against Achilles at *Il.* 20.285–91.[39] In both cases, Turnus' reenactment of the Iliadic scene allows Aeneas to reverse the outcome of his earlier Homeric defeats—a style of literary revision that characterizes a number of Homeric allusions in the *Aeneid*.[40] Yet beyond these specific allusions to Diomedes and Achilles, it is also worth considering the broader thematic significance of epic stone throwing in general, in order to clarify how certain echoes of Lucretius in this passage complement the Homeric material.

There are numerous examples of stone throwing in the *Iliad*, almost all of which are characterized by a high degree of accuracy and gruesome harm.[41] Certain idiosyncrasies of stone warfare in Homer also distinguish it as a particularly ancient form of combat, unlike anything the contemporary audience would encounter in their own experience. This form of combat is best captured in a formula that occurs four times in the *Iliad*, describing how the combatant wields a stone single-handedly which two men could not lift, "such as mortals are now" (οἷοι νῦν βροτοί εἰσ').[42] It is widely recognized that Virgil's comparison between ancient and contemporary strength represents an allusion to Homeric stone throwing, while the change from two to 12 men marks an amplification characteristic of Virgil's allusive style.[43] Moreover, the basic concept in both poems is one of generational decline from the time of the narrative to that of the reader, a popular motif found throughout both Greek and Roman literature.[44]

However, the peculiar manner in which Virgil alludes to this Homeric detail suggests an additional thematic link to Epicurean eschatology. In fact, Virgil incorporates close verbal echoes from Lucretius's description of the earth's weakening that gesture at the atomic unraveling of the world, envisioned as a

[39] For Diomedes in *Il.* 5 as the model for Turnus, see Tarrant 2012: 321 (ad 12.896–902); Fletcher 2006: 255–56; and Knauer 1964: 316–20. For the presence of Achilles as a supplementary model in the Virgilian version, see Quint 1993: 72–74; Van Nortwick 1980: 312; and MacKenzie 1964: 3–5.

[40] Cf. n. 1, in the present chapter.

[41] See Dihle 1970: 77, *Heitsch hat richtig beobachtet, dass der treffsichere Steinwurf in allen Zweikämpfen der Ilias . . . den Sieg des Werfers herbeiführt* ("Heitsch has rightly observed that the accurate throwing of a stone in every duel in the Iliad .. . . leads to a victory for the thrower"). In total, I count 13 instances of stone throwing in the *Iliad*: 11 in which one warrior throws a stone at another warrior, one in which a god attacks another god, and one in which a stone is thrown as a siege weapon against the gates of the Achaean camp.

[42] *Il.* 5.304, 12.383, 12.449, 20.287.

[43] Cf. Virgil's allusive hyperbole at *Aen*. 6.625: *non, mihi si linguae centum sint oraque centum* ("Not if I were to have one hundred tongues and one hundred mouths"), which exaggerates Homer's claim at *Il.* 2.489 by a factor of ten: οὐδ' εἴ μοι δέκα μὲν γλῶσσαι, δέκα δὲ στόματ' εἶεν ("Not if I were to have ten tongues and mouths").

[44] See, e.g., Theophr. *Char*. 3.3, where the topic of generational decline is used to exemplify the sort of banal commonplaces that an "idle talker" (ἀδολέσχης) likes to discuss.

dissipation of matter into the void. As Conington and Nettleship astutely observe at *Aen*. 12.900, Virgil's subtle alteration of the Homeric "such as men are now" formula subtly evokes the cosmology of Book 2 of *de Rerum Natura*: [45]

> Virg. amplifies Homer's οἷοι νῦν etc., by bringing in the notion of the earth's motherhood, so copiously illustrated by Lucr. 5.829 foll. The idea developed there is that the earth's productive force, like a woman's, wears out with continued child-bearing, and that her later offspring is therefore weaker and punier than the earlier. (ad *Aen*. 12.900)

Conington and Nettleship go on to cite Lucr. 2.1150–51 in support of this claim, although we should include the subsequent line of that passage as well when we consider the direct verbal parallels between the two passages:

> iamque adeo fracta est aetas effetaque tellus
> vix animalia parva creat quae cuncta creavit
> saecla deditque ferarum ingentia corpora partu. (Lucr. 2.1150–52)

> And so now the time of life is broken and the weary earth scarcely creates small living things, the earth that created all the ages and gave birth to the giant bodies of beasts.

Let us again compare the Virgilian line: *qualia nunc hominum producit corpora tellus*, ("with the sort of bodies of humans the earth now produces," *Aen*. 12.900). The production of bodies by Virgil's *tellus* ("earth") is remarkably similar to what Lucretius describes, while the odd rephrasing of οἷοι νῦν βροτοί as *qualia nunc hominum corpora*, with "humans" changed to the genitive and the relative adjective shifting to agree with "bodies," deserves some explanation.[46] It is not, as I will show, simply a conventional periphrasis, nor merely an instance of syntactic *oppositio in imitando*, but rather it engages with the atomism of the Lucretian passage just cited.

In and of itself, *corpora* ("bodies") plus the genitive is not unusual in epic, and is used in a periphrastic sense as far back as Ennius' *Annales*.[47] In the

[45] Although Tarrant dismisses Conington and Nettleship's allegation of Lucretian resonance in this line, he offers no argument as to why this cannot be the case.

[46] Virgil just as easily could have written the line without any unusual syntax: *quales nunc homines producit<˘> tellus*, with a dactylic adjective in the fifth foot modifying *tellus*.

[47] See Skutsch 1985 ad *Ann*. 88: "The periphrastic use of *corpora* with the genitive is popular in dactylic poetry because it eases versification . . . It seems probable that the idiom was suggested to

Aeneid, the idiom occurs regularly, and in some cases the specific mention of "bodies" is actually necessary for clarifying some aspect of a description, such as when snakes wrap themselves around the bodies of Laocoon's children on the shores of Troy.[48] Likewise, Virgil often uses the expression to describe corpses, where the word *corpus* has a contextually appropriate meaning analogous to the modern English usage of "body" to denote a corpse.[49] In other cases, however, the inclusion of *corpora* is basically otiose, as far as sense goes, because the expression simply means "people."[50] As Alfonso Traina points out, this periphrastic use has precedents in earlier Latin epic, namely Ennius and Lucretius, as a fairly common idiom.[51]

Yet, as far as the phrase "bodies of humans" (*corpora hominum*) at *Aen*. 12.900 is concerned, the Lucretian passage offers itself as a specific model for a number of reasons. At the level of individual words and phrasing, the idea in Lucretius of the earth (*tellus*) producing "bodies of beasts" (*ferarum corpora*) is mirrored in Virgil by that same *tellus* creating "bodies of humans" (*hominum corpora*). Furthermore, the *iamque* ("and now") at the beginning of the Lucretian description is analogous to Homer's νῦν ("now"), presenting another potential linguistic connection between the two passages.

Most importantly, however, Lucretius' adaptation of the "*corpora* plus genitive" periphrasis at 2.1152 is memorable precisely because it makes the use of *corpora* philosophically meaningful, whereas in fragments of Ennius it is often semantically superfluous. In its overall organization, *de Rerum Natura* moves from microcosm to macrocosm, beginning with the smallest groupings of atoms and proceeding by the processes of deduction and analogy to ever-larger structures.[52] In his description of earth's decline up

Ennius by Greek models; but the corresponding use of σῶμα is not very common and almost entirely restricted to choral song in tragedy: Soph. *OC* 1568f. σῶμα θηρός; Eur. *Tro*. 201 τεκέων σώματα."

[48] *corpora natorum serpens amplexus uterque/ implicat et miseros morsu depascitur artus* ("each snake wraps itself around the bodies of the children and consumes their wretched limbs in its teeth," *Aen*. 2.214–15).

[49] See *Aen*. 1.101, 8.539, and 10.662. Virgil also uses the expression to denote female war captives in a way that suggests their objectification: *lectissima matrum/ corpora* ("the most excellent bodies of mothers," *Aen*. 9.272–73).

[50] *OLD* s.v. *corpus* (9). See, e.g., *Aen*. 2.18–19: *huc delecta virum sortiti corpora furtim/ includunt* ("There, having drawn lots, they secretly shut in the picked bodies of men").

[51] Traina 1997 ad 12.270–71 cites *Ann*. 88 and Lucr. 1.1015 and 2.1083 as examples.

[52] See Gale 2004: 53 for a more detailed schematic account of this movement. This bottom-up approach is fundamental to Lucretius' analogical method: *rerum magnarum parva potest res/ exemplare dare et vestigia notitiai* ("Something small can offer a model of great things and trace the outlines of an idea," Lucr. 2.123–24).

to the present day, Lucretius depicts the universe as an atomic compound writ large and, as such, subject to the same laws of dissolution as any smaller cluster of individual atoms.[53] Thus, when Lucretius describes the failure of the earth to produce the *corpora* ("bodies") of animals, we are reminded of the original *corpora* ("atoms") that underlie this cosmic decline. Virgil's syntactic nod to Lucretian *corpora* may be understood as performing the same function. In borrowing the language of the Lucretian passage, Virgil alludes to a description that invites its original readers to draw an implicit comparison between living bodies and atomic ones, and to see the laws of atomism as the driver of physical decay in the world. This Epicurean recasting of the Homeric formula thus invites the reader of the *Aeneid* to perform the same operation on Virgil's text, and to see in Turnus' impending physical and mental failure a fleeting glimpse of the chaotic, disordered worldview of atoms and void.

As the description of Turnus continues, he picks up the rock and prepares to throw (12.901–2). At the last second, however, he has an out-of-body experience that ominously prefigures his total mental and emotional collapse a few moments later:

> sed neque currentem se nec cognoscit euntem
> tollentemve manu saxumve immane moventem;
> genua labant, gelidus concrevit frigore sanguis. (*Aen*. 12.903–5)
>
> But he does not recognize himself running, nor going, nor raising the enormous rock in his hand and moving it; his knees quiver, and his blood has frozen with cold.

As a result of this loss of nerve, the description of which draws upon Lucretian portrayals of plague victims losing their minds in the throes of illness, Turnus' throw is pathetically ineffective, failing even to reach its intended target:[54]

> tum lapis ipse viri vacuum per inane volutus
> nec spatium evasit totum neque pertulit ictum. (*Aen*. 12.906–7)

[53] See Bailey 1928: 341, 360, who notes the similarity in Epicurus' writings between a small atomic structure (περιπλοκή) and the organization of a world (κόσμος), particularly in the shared need for an outer shell to prevent internal atoms from spilling out into the void.

[54] For the Lucretian flavor of Turnus' helplessness, see Tarrant 2012: 323 and Hardie 2009: 173.

> Then the man's stone was whirled through the empty void, and it neither crossed the whole space nor struck a blow.

In addition to the Homeric episodes of stone throwing from the *Iliad* just discussed, critics have documented a long list of Lucretian echoes and allusions permeating nearly every line of the passage describing Turnus' failed attack and its immediate aftermath.[55] In particular, the description of the stone's flight, "whirled through the empty void" (*vacuum per inane volutus*, 12.906), which reproduces the syntax of Turnus' attack on Eumedes, "he threw a javelin through the long void" (*longum per inane secutus*, 12.354), strongly evokes the movement of atomic matter in the void, previously discussed.[56] By reversing the outcome of that earlier javelin throw, Virgil suggests that the atomic cosmology associated with Turnus' violence has similarly failed to stop the accession of Trojan—and eventually Roman—power in Latium.

As Hardie has argued, the Lucretian allusions that suffuse this passage, which evoke diverse topics ranging from the Athenian plague, to Epicurean dream theory, to the motion and collision of atoms, effectively "serve to write [Turnus'] failure in Lucretian terms" on a number of levels (2009: 173). However, while various Lucretian allusions in this scene have received extensive commentary, the echo of Turnus' earlier javelin throw against Eumedes has attracted considerably less discussion. Hardie, for example, notes that Turnus' failure to throw the stone all the way "through the empty space" (*per inane*) contrasts with his earlier success throwing a javelin against Eumedes, but neither Hardie nor anyone else one has remarked upon the further thematic and structural parallels between those two scenes, which go beyond the resemblance between the phrases "whirled through the empty void" (*vacuum per inane volutus*, 12.906) and "he threw a javelin through the long void" (*longum per inane secutus*, 12.354).[57]

One important thematic similarity is apparent in the type of stone that Turnus throws: a boundary stone used to settle legal disputes over the division of lands (12.897–98). On the one hand, despite the existence of a Homeric precedent for the throwing of a boundary stone in combat (*Il.*

[55] See Tarrant 2012: 318 and Hardie 2009: 173.
[56] Cf. pp. 115–20.
[57] Hardie 2009: 174 states that the failed stone throw is "quite unlike his successful spear-throw earlier in Book 12," while also noting the Lucretian valence of *per inane* ("through the void").

21.403–5), Hardie is certainly right to cite the "deeply fixed limit" or "boundary stone" (*alte terminus haerens*, Lucr. 1.77) of Epicurean rationality, as well as the Lucretian thought experiment in which one attempts to throw a spear past the theoretical edge or boundary of the universe (Lucr. 1.951–83), as thematically relevant analogues for Turnus' transgressive displacement of the Latin boundary stone.[58] On the other hand, the legal significance of the stone may also evoke Turnus' earlier projectile attack against Eumedes, when he rails against Trojan attempts at land surveying: " 'Behold, Trojan, the fields of Hesperia that you sought in war; measure them out when you lie dead' " (" '*en agros et, quam bello, Troiane, petisti,/ Hesperiam metire iacens*,' " *Aen*. 12.359–61). Like the phrase "measure out lands" (*agros metire*), which anachronistically evokes the Roman practice of surveying and dividing plots of land to distribute to veteran soldiers, the ancient boundary stone possesses legal and colonial associations intimately related to the impending transfer of authority in Latium from Italian to Trojan leadership. Therefore, one may interpret Turnus' failed stone throw as a reversal or undermining of his earlier threat against would-be colonists and land reformers—a literal, physical demonstration of his inability to successfully challenge the future of Roman political authority over Italy, an authority that Virgil tendentiously anchors in the practices of the pre-Trojan past.[59]

In addition to their shared concern with land division and political power, the aftermath of Turnus' attack on Aeneas follows a similar sequence of events as his earlier attack on Eumedes, albeit with a reversal of roles. While repetition of the "through the void" (*per inane*) phrase suggests that Turnus perhaps intended to reproduce the success of his ranged attack against Eumedes, his failure to strike Aeneas with the stone results in the Rutulian prince ironically suffering the same fate that he inflicted upon Eumedes. Like Eumedes, Turnus is wounded by a spear throw (12.919–27), and then executed at sword point (12.950–52) while his killer gives a short, angry speech providing justification for the act (12.947–52).[60] Just as this final duel allows Virgil to rewrite previous Trojan defeats at the hands of Iliadic Greek heroes,

[58] Hardie 2009: 174–77.

[59] For discussion of the sacrilegious dimension of Turnus' action, see Huskey 1999: 77–79, summarizing the various traditions regarding the god Terminus and the sacrosanctity of agricultural boundaries. The dire consequences of disturbing a boundary stone are vividly described in the writings of one of the Roman land surveyors, quoted at Campbell 2000: 258.

[60] Compare the sequence in which Turnus wounds Eumedes with the javelin (12.353–54) and then executes him with his sword (12.356–58) while speaking over his body (12.359–61).

Turnus suffers the inverse outcome, reenacting his earlier victory, but in the role of the victim rather than the aggressor.[61]

The implied association between atomic physics and Turnus' violent opposition to Trojan (and by extension Roman) rule is further strengthened in the lines immediately following, where the philosophical dimension of his defeat is driven home. Here, Virgil recasts yet another memorable Homeric simile in distinctly Lucretian language, comparing Turnus' helplessness to that of a person unable to move or speak in a dream:

> ac velut in somnis, oculos ubi languida pressit
> nocte quies, nequiquam avidos extendere cursus
> velle videmur et in mediis conatibus aegri
> succidimus; non lingua valet, non corpore notae
> sufficiunt vires nec vox aut verba sequuntur:
> sic Turno . . . (12.908–13)

> And like in dreams, when languid quiet has pressed upon our eyes at night and in vain we seem to want to extend our eager running and, wearied, we fall in the midst of our efforts—the tongue has no power, and the usual strength of our body does not suffice and neither voice nor words follow—thus for Turnus . . .

Once again, the primary Homeric model for this simile comes from Book 22 of the *Iliad*, when Achilles chases Hector around the walls of Troy:

> ὡς δ᾽ ἐν ὀνείρῳ οὐ δύναται φεύγοντα διώκειν·
> οὔτ᾽ ἄρ᾽ ὃ τὸν δύναται ὑποφεύγειν οὔθ᾽ ὃ διώκειν·
> ὣς ὃ τὸν οὐ δύνατο μάρψαι ποσίν, οὐδ᾽ ὃς ἀλύξαι. (*Il.* 22.199–201)

> As in a dream when one is not able to catch another who flees—the one is not able to get away and the other cannot catch up—thus Achilles could not catch Hector with his feet, nor could Hector escape.

However, while commentators universally identify this passage as the model for the Virgilian allusion, Virgil deploys the idea of dreaming in an entirely

[61] O'Hara 1990: 82–85 identifies a similar dynamic with regard to language in the poem, suggesting that Turnus' death will function as a ritual *devotio*. Turnus is misled by the gods into believing this, his personal sacrifice, will secure victory for the Italians, when in fact it produces the opposite outcome.

different context from that of Homer.[62] In the Homeric passage, Hector is still running from Achilles, and has not yet made his final failed attack upon Achilles—a deflected javelin throw that corresponds roughly to Turnus' stone throwing at *Aen*. 12.896–907. The dream simile in the *Iliad* describes a suspension of narrative time, a snapshot of endless pursuit, in which both the pursuer and pursued are powerless to break the stalemate until Zeus weighs in with his golden scales to decide the outcome (*Il*. 22.208–13). In the *Aeneid*, the dream comparison also describes a feeling of powerlessness, but Virgil transposes his simile to the end of the fight, rather than earlier in the scene when Aeneas chases Turnus around the city walls, so that the dreamlike inability to act applies only to the defeated Rutulian prince, and not to Aeneas. Thus, the modified image is not one of equilibrium between two rivals, as it is in the Homeric description, but of the physical and mental collapse of one single character in the face of death.

This shift in narrative context from the Homeric original is paralleled by a change of emphases in the Lucretian allusive content as well. As various scholars have previously noted, peculiarities of rhythm, vocabulary, and even grammar in this passage overwhelmingly identify Lucretius as an important source for Virgil's dream simile.[63] This identification is signaled by the opening hemistich of the Virgilian passage, *ac velut in somnis* ("and like in dreams," *Aen*. 12.908), which echoes a similar expression used by Lucretius to compare the motion of the soul to images of smoke seen while someone is sleeping, *quod genus in somnis* ("like in dreams," Lucr. 3.431).[64] In the construction of the simile that follows, Virgil draws upon two distinct passages in Lucretius. The first is an account of dreams and sleep consciousness, which occurs in the context of a longer section on perception from Book 4 of *de Rerum Natura*:

> denique cum suavi devinxit membra sopore
> somnus et in summa corpus iacet omne quiete,
> tum vigilare tamen nobis et *membra movere*
> *nostra* videmur, et in noctis caligine caeca

[62] Schlunk 1974: 104–6 notes the different circumstances under which Virgil deploys the Homeric dreaming simile, although without any mention of Lucretian influence.

[63] So Tarrant 2012: 324 (ad 12.908): "[Virgil's] alterations are Lucretian both in spirit and in specific reference." See also Hardie 2009: 173–74.

[64] Leonard and Smith 1942 ad 3.431 gloss *quod genus* as "equivalent of *velut* . . . an adverbial accusative often found in Lucretius." In his note on the same line, Bailey observes that *in somnis* ("in dreams") occurs 14 times in Lucretius.

cernere censemus solem lumenque diurnum,
conclusoque loco *caelum mare flumina montis*
mutare et *campos pedibus transire* videmur,
et *sonitus audire*, severa silentia noctis
undique cum constent, et *reddere dicta tacentes*
cetera de genere hoc mirande multa videmus,
quae violare fidem quasi sensibus omnia quaerunt,
nequiquam, quoniam pars horum maxima fallit
propter opinatus animi, quos addimus ipsi,
pro visis ut sint quae non sunt sensibus visa. (Lucr. 4.453–66)

Finally, when sleep has bound our limbs in gentle rest and our entire body lies in deepest quiet, then we seem, nevertheless, to be awake and *to move our limbs*, and in the blind darkness of night we judge that we see the sun and the daylight, and though in a closed space, we seem *to move through sky, sea, streams and mountains*, and *to cross fields on our feet, and to hear sounds* even when the stern silence of the night surrounds us, and *to answer with words, even when we are not talking*. We see many other miraculous things of this type, all of which almost seeks to undermine our faith in the senses—in vain, because the greatest part of these deceive us based on opinions of the mind, which we ourselves provide, with the result that things not seen by the senses are taken as seen.

At the level of individual words and phrases, the correspondences with Virgil are numerous. To begin, the opening line of the Virgilian simile, *oculos ubi languida pressit/ nocte quies* ("when languid quiet has pressed upon our eyes at night" 12.908–9) closely mimics that of the Lucretian passage, particularly in the delayed use of *quies*: *denique cum suavi devinxit membra sopore/ somnus et in summa corpus iacet omne quiete* ("Finally, when sleep has bound our limbs in gentle rest and our entire body lies in deepest quiet" 4.453–54). Second, for Virgil's use of *nequiquam* ("in vain" 12.909), Tarrant suggests the Lucretian usage at 4.464. Most striking, however, is Virgil's adoption of the first-person plural verb *videmur* ("we seem," *Aen*. 12.910) from Lucretius (4.456, 459), a narrative tactic unparalleled elsewhere in Homeric and Virgilian poetry.[65] This generalizing and inclusive use of the

[65] Tarrant 2012: 325 (ad 12.910) notes one prior instance in Apollonius in which the poet interrupts a simile with a generalizing comment in the first-person plural (*Argon*. 2.541–42).

verb, employed by Lucretius as a way to relate his atomistic explanations of perception to the everyday experiences of his audience, creates a powerful feeling of sympathy for Turnus, while memorably evoking the Lucretian description of dreams.

Yet beneath this flurry of verbal echoes, Virgil presents a fundamentally different account of dreaming from Lucretius, changing the dreamer's experience from one of activity to inaction.[66] In his Epicurean account of dream perception, Lucretius is interested mainly in the way that we seem to move and perform normal activities while asleep: *membra movere/ nostra* ("to move our limbs" 4.455–56); *caelum mare flumina montis/ mutare* ("to move through sky, sea, streams, and mountains" 4.458–59); *campos pedibus transire* ("to cross fields on our feet" 4.459); *sonitus audire* ("to hear sounds" 4.460).[67] This action contrasts with the Virgilian dream simile, in which similar attempts at movement are rendered impossible: *nequiquam avidos extendere cursus/ velle videmur et in mediis conatibus aegri/ succidimus* ("in vain we seem to want to extend our eager running and, wearied, we fall in the midst of our efforts," *Aen*. 12.909–10). Similarly, while Lucretius describes people in dreams producing speech without even speaking, *reddere dicta tacentes* ("to answer with words, even when we are not talking" 4.461), Virgil's dreamers are helpless to communicate: *non lingua valet, non corpore notae/ sufficiunt vires nec vox aut verba sequuntur* ("the tongue has no power, and the usual strength of our body does not suffice and neither voice nor words follow," *Aen*. 12.911–12). Although Virgil colors his own dream simile with certain details culled from Lucretius' account of dreaming, the content is inverted, so that dreams do not provide examples of action, but of the tragic inability to act or speak, as in a nightmare.

So where does the theme of individual powerlessness and physical failure come from, if not from the original Homeric simile or from Lucretius' description of dreams? As I previously mentioned, commentators and critics generally acknowledge two separate sources of Lucretian allusion in Virgil's simile. The second of these passages has no explicit connection to dreaming, but instead describes the emotional experience of fear and

[66] Giesecke 2000: 82 reads Virgil's account of dreaming as essentially similar to that of Lucretius, citing the fact that "both groups of lines speak of the apparent failure of physical efforts in one's dreams." However, the Lucretian passage does not describe a single failure of physical efforts while someone is dreaming; on the contrary, it abounds with examples of positive action and motion within dreams. The point, rather, is that such action is illusory.

[67] See also Lucr. 4.962–72, which similarly elaborates dream activity (rather than helplessness).

its physical symptoms, in the context of the relationship of the mind to the body:[68]

> verum ubi vementi magis est commota metu mens,
> consentire animam totam per membra videmus
> sudoresque ita palloremque existere toto
> corpore et infringi linguam vocemque aboriri,
> caligare oculos, sonere auris, succidere artus,
> denique concidere ex animi terrore videmus
> saepe homines. (Lucr. 3.152–58)

> But when the mind is disturbed by intense fear, we see that the whole soul feels it throughout the limbs, and thus sweating and pallor break out all over the body, and the tongue breaks and the voice fails. The eyes grow dark, the ears ring, limbs fall, and finally we see that men often die from a terror of the mind.

In this description of fear we see a number of parallels to the Virgilian simile. Just as in Lucretius' account of dreaming, the verb *videre* ("to see") appears in the first-person plural with the same generalizing function, although this time in the active, rather than passive, voice. In addition, Tarrant argues that *succidere* ("to fall") in Lucr. 3.156 provided the specific model for Virgil's use of *succidimus* ("we fall") in *Aen*. 12.911. Most importantly, Tarrant identifies Lucretius' description of the voice breaking, *infringi linguam vocemque aboriri* ("the tongue breaks and the voice fails" 3.155), as a model for Virgil's *non lingua valet, non corpore notae/ sufficiunt vires nec vox aut verba sequuntur* ("the tongue has no power, and the usual strength of our body does not suffice and neither voice nor words follow," *Aen*. 12.911–12). To complete our picture of Lucretian borrowings in Virgil's dream simile, we may add the following two lines from Lucretius' explanation of the atomic causes of sound, which plausibly provided the inspiration for the prhase *nec vox aut verba* in the Virgilian passage: *haud igitur dubiumst quin voces*

[68] See Tarrant 2012: 325 (ad 12.911). In addition, Bailey 1947 ad 3.154–56 identifies Sappho 31.7–9, specifically γλῶσσα ἔαγε ("my tongue has broken"), as a literary model for Lucr. 3.155: *infringi linguam vocemque aboriri* ("the tongue breaks and the voice fails"), while Fowler 2000: 149–55 argues that Lucretius mediated this Sapphic allusion through Greek medical texts. In addition, Tarrant offers two other comparanda from Latin love poetry: Catul. 51.9 and Hor. *Carm* 4.1.35–36. Cf. Thomas 2011 ad *Carm*. 4.1.35–36, who identifies a long lineage of borrowings on this topic extending from Sappho down to Horace.

verbaque constent . . . ("Therefore there is absolutely no doubt that voices and words exist . . . ," Lucr. 4.533).

In summary, these descriptions of fear-induced helplessness provide an obvious thematic link to Epicurean philosophy, namely in its concern with the fear of death. In the lines leading up to the dream simile, the varied allusions to atomic physics and to the earlier attack on Eumedes suggest that Turnus' failure to stop Aeneas represents a more general failure of atomic physics, a failure that has been constructed throughout the poem as a symbol of cosmic disorder and anti-Roman violence. In turn, the Lucretian descriptions of fear within the simile add a poignant ethical component to this failure. Although Turnus himself is not a personal adherent of Epicureanism in any meaningful sense, his violence against the Trojans is repeatedly associated with the haphazard motion of atoms, such that we can see his character as allegorically embodying the physical disorder of atomism. In other words, Turnus does not represent a proto-Epicurean philosopher so much as an atomic *cosmos*, symbolizing in human terms the failure of atomic physics—with its absence of hierarchy and teleology—to achieve lasting stability and order. In such a role, his complete emotional unraveling in the face of death presents a particularly provocative inversion of Epicurean ethical values. According to the teachings of Epicurus, a correct understanding of the transitory, atomic nature of all human existence should liberate us from our fear of death, yet here we see Turnus, whose final actions are repeatedly described in the language of atomic physics, buckling under that very same fear. This defeat, as it is communicated through a pastiche of Lucretian allusions, invalidates the Epicurean philosophy in its own terms, both on the atomic and the ethical level.[69]

One may perhaps object at this point that the Lucretian details clustered around Turnus' stone-throwing failure have more to do with epic register than philosophical doctrine, or that fear of death is entirely appropriate in the narrative context, and that such a fear is neither the exclusive property of Epicurean philosophy nor even of philosophy in general. Yet the preponderance of thematically relevant Lucretian allusions at this moment in the text surely encourages a philosophical interpretation of that fear. By constructing Turnus' terror from the physical symptoms of fear described in

[69] Cf. Hardie 2009: 178: "Aeneas' enemy Turnus collapses in disorderly fragments of the Lucretian project."

Lucr. 3.152–58, Virgil does not just engage with fear as a topos of literary allusion, but with a particular philosopher's understanding of fear as the result of atomic interactions between the body and mind.[70]

A final look at the source of Virgil's *nec vox aut verba* ("neither voice nor words," 12.912), previously and briefly mentioned in the list of Lucretian correspondences, illustrates this point. In isolation, Lucretius' *voces verbaque* ("voices and words," 4.533) convey no philosophical agenda, but now let us recall that phrase in its original context: *haud igitur dubiumst quin voces verbaque constent/ corporeis e principiis, ut laedere possint* ("therefore there is absolutely no doubt that voices and words exist from atomic origins, so that they are able to inflict damage," 4.533–34). Latent in Virgil's adaptation of the Lucretian phrase is a neat summary of the Epicurean explanation for sound arising from atomic particles. I do not mean to suggest that Virgil here is endorsing the Epicurean doctrine concerning the transmission of sound within the world of the poem, but merely that such allusions form an undercurrent of Epicurean meaning that ought to shape our reading of Turnus' fear as a particularly *philosophical* fear, linked to the atomic physics that forms the basis of Epicurean thought. Since this fear is composed almost entirely from Lucretian intertexts, we should interpret it in Epicurean terms. And on that basis, Turnus' collapse represents a defeat for Epicureanism on both personal and cosmological levels: the failure of Turnus to strike a blow at Aeneas with his atomic stone embodies the failure of atomism as a chaotic, anarchic worldview, while his terror in the face of death makes this philosophical defeat intensely personal.[71] Nevertheless, as has been amply illustrated in modern Virgilian criticism, the complex ending to the *Aeneid* often resists totalizing claims of victory and defeat, and Aeneas' actions in the closing moments of the poem cast a potentially troubling shadow over the triumph of Roman power against the specter of atomic disorder.[72]

[70] The philosophical or "scientific" texture of this fear is even more striking when one considers that Lucretius' description of fear at 3.152–58 is itself constructed from a variety of earlier Greek medical texts; see Fowler 2000: 151–54.

[71] Indeed, this assimilation of the local to the universal is the defining feature of any allegorical approach to the *Aeneid*. It is, in Hardie's words, "the relationship between cosmological models, on the one hand, and the structures of human history and society, on the other" (1986: 1–2). To this feature we may add a third point of comparison: the individual or personal.

[72] See Hardie 2009: 178–79. Elsewhere, Hardie perceptively notes that while Lucretius displays complete certainty about the truth of his Epicurean vision, Virgil resists such certitude in his own epic (1993: 74).

4.4 THE DEATH OF TURNUS

So far, these observations about the atomic characterization of Turnus mostly complement the scholarly consensus that has coalesced around previous readings of Lucretian influence in *Aeneid* 12 (and particularly those of Hardie, who allows the greatest thematic significance to Lucretian allusions throughout the poem). Yet in the final lines of Book 12, there are additional, understudied parallels between Turnus' killing of Eumedes and his failed attack on Aeneas that further contextualize the ideological significance of atomic imagery at the end of the poem. After the failed stone throw, which hints at a rejection of Epicurean rationalism and cosmology, Turnus finally succumbs to a spear throw by Aeneas that signals the triumph of traditional religious piety and Roman imperial power:

> Cunctanti telum Aeneas fatale coruscat,
> sortitus fortunam oculis, et corpore toto
> eminus intorquet. murali concita numquam
> tormento sic saxa fremunt nec fulmine tanti
> dissultant crepitus. volat atri turbinis instar
> exitium dirum hasta ferens orasque recludit
> loricae et clipei extremos septemplicis orbis;
> per medium stridens transit femur. (12.919–26)

> As Turnus hesitates, Aeneas brandishes the fatal spear, choosing the right moment with his eyes. From a distance, he winds up to throw with his whole body. Never before did walls struck by siege weapon make such a sound, nor did such crashing ever burst from lightning. The spear flies like a black whirlwind, bearing dire destruction; it pierces the edges of Turnus' cuirass and the farthest layers of his sevenfold shield; it passes, hissing, through the middle of his thigh.

Hardie's insightful analyses of this moment emphasize above all the spirit of inversion and ideological reversal, as Virgil combines language from Lucretius' rationalizing descriptions of lightning with the imagery of Jupiter's Olympian thunderbolt and Roman battlefield technology.[73] Lucretian language is deployed to serve conspicuously un-Lucretian ends, while the

[73] See Hardie 2009: 176 and 1986: 177–80, which cite the simile at Lucr. 6.328–29.

similes evoking divine lighting and siege weaponry suggest a fusion of religious authority and state power in the figure of Aeneas.[74]

Yet despite the triumph of Roman divinity and teleology suggested by Aeneas' successful wounding of Turnus, many scholars have found jarring threads of pessimism woven into the act of vengeful violence that concludes the poem.[75] Thus Hardie, who carefully eschews the binary of "optimistic" versus "pessimistic" interpretations of the *Aeneid*, concludes that Virgil's co-opting of Lucretius and his vision of intellectual conquest is "severely compromised" by Aeneas' lack of tranquility when killing Turnus (Hardie 2009: 179).[76] While the dense knot of literary, religious, and historical allusions in the finale of the poem defies easy resolution, I believe that a closer examination of one additional point of comparison between Turnus' death and his earlier projectile attacks against Eumedes and Aeneas will further support the idea of an ideologically "compromised" victory for Aeneas, in which his killing of Turnus recalls negative aspects of Turnus' killing of Eumedes.

The final parallel that links the deaths of Eumedes and Turnus, both verbally and thematically, arises from their mutual concern with the relationship between violence and the founding of the Roman polity. As a number of scholars have observed, when Aeneas abruptly and angrily executes Turnus after glimpsing Pallas' sword belt, his "burial" (*condere*) of the sword into Turnus' body recalls various prophecies of Rome's "founding" (*condere*) at the beginning of the poem: "While saying this, furious, he *buries* the sword into the front of his chest" (*hoc dicens ferrum adverso sub pectore* condit/ *fervidus*, 12.950–51).[77] Regardless of how one judges this act in terms of personal or religious morality, Tarrant observes that it "underscores the point that [Turnus'] killing is a necessary precondition" for any political settlement—that is, Aeneas' violence is undeniably *foundational* for the future success of Rome and its people (2012: 340).[78]

[74] Hardie 1986: 178.

[75] Tarrant 2012: 16–30 offers an evenhanded and detailed summary of different interpretive camps that have arisen within the extensive scholarship on the ending of *Aeneid* 12, while also discussing evidence for "pessimistic" readings in ancient criticism of the poem (22–24).

[76] Hardie 1993: 76 identifies this tension between closure and doubt as a fundamental feature of Virgil's epic: "the *Aeneid* is an epic that strives for an unusual degree of closure, and which employs unusually schematic conceptual and cosmographic structures to this end, but at the same time is unusually prone to doubt and irresolution."

[77] Tarrant 2012: 340 compares Virgil's use of *condere* at *Aen.* 1.5: *conderet urbem* ("he founded a city"); 1.33: *Romanam condere gentem* ("to found the Roman people"); and 1.276–77: *Mavortia condet/ moenia* ("he will found walls sacred to Mars"). See also James 1995: 623.

[78] For further discussion of the political and historical necessity of Turnus' death as it relates to civic foundations, see James 1995: 633–36; Hardie 1997: 150–51; and Hardie 1993: 21.

While this detail has elicited various comparisons with the prophecies of foundation in Book 1 and with other episodes of weapons being "buried" (*condere*) into defeated adversaries, Turnus' sarcastic boast as he plunges his sword into Eumedes' neck earlier in Book 12 provides a grimly fitting model for the conflation of personal violence and civic foundations: "thus do they found their walls" (*sic moenia condunt*, *Aen*. 12.361).[79] What is most noteworthy about this scene is that, despite Turnus' sarcastic tone, which is apparent from his quip in the preceding lines that the Trojan invaders may survey or "measure out" (*metire*, 12.360) Italian lands with their corpses, it accurately anticipates the actual ending of the poem. The Trojans will, in fact, found their new civilization in an act of violence. In an ironic twist for Turnus, however, this foundation will not be the result of Trojan blood, but of his own defeat and death at the hands of Aeneas.[80] In an important sense, therefore, the "burial" of the sword into Turnus' chest at the end of the poem marks a powerful reversal of his killing of Eumedes.

However, even with the clear Trojan victory on the battlefield, the evocation of Eumedes' death at this moment generates its own interpretive problems, partially eroding the distinction between the ways that Turnus and Aeneas each use violence for political ends. While the earlier allusions to Epicurean atomism in Turnus' missile attacks on Eumedes and Aeneas suggest that the Rutulian prince's violence is a force of political and cosmic disorder, more suitable to the random, non-teleological motion of atoms than to the orderly hierarchy of an idealized Rome and its divine patrons, Sharon James notes that Turnus also defends a *preexisting* political order in Italy (1995: 623). The thematic and verbal similarities between Turnus' killing of Eumedes and Aeneas' killing of Turnus thus reveal two men acting in fundamentally similar ways, angrily inflicting violence upon their enemies to achieve a desired political outcome. In terms of political justification, they are separated more by the divinely ordained outcome of their efforts than by any meaningful disparity in motive.[81]

[79] James 1995: 626–33 discusses other killings in the *Aeneid* that use the verb *condere*.

[80] As far as I am aware, no one has previously remarked upon this connection between the uses of *condere* at 12.361 and 12.950.

[81] Beyond strictly political considerations of self-defense, however, Turnus' personal motivations are often susceptible to criticism in ways that Aeneas' are not. See, e.g., Stahl 1990: 176–77, who points out that earlier oracles pronouncing Lavinia's eventual marriage to a foreigner render Turnus' self-righteous anger at Aeneas' "bride stealing" considerably less defensible.

4.5 CONCLUSION

Compared to more prominent Homeric parallels, such as the duels between Aeneas and Diomedes in *Iliad* 5, or between Achilles and Hector in *Iliad* 22, the death of Eumedes is admittedly a secondary model for the final scene of the *Aeneid*. However, the ideologically charged parallels between the deaths of Eumedes and Turnus discussed previously, which touch on essential issues of cosmology, colonization, and political violence, are surely more than incidental. In closing, I would argue that, to the extent that Turnus' death marks an inversion of his earlier killing of Eumedes, the implied rejection of Italian political power (and of the Epicurean cosmology with which Turnus is allusively associated) in this act remains somewhat unsettled. Teleology and Trojan power emerge victorious by the end of the poem, but in a manner that uncomfortably likens Aeneas' actions to those of Turnus.[82]

Discussing the role of doubt and dissent in Augustan literature, Duncan Kennedy argues, "Power is successful in so far as it manages not so much to silence or suppress as to *determine the consumption* of the oppositional voice within its discourse" and within an individual text (1992: 41). By linking the deaths of Turnus and Eumedes in the ways that I have described, I would argue that the text of the *Aeneid* resists determining the consumption of its closing scene in a strictly binary fashion, even while clearly conceding overall victory to Aeneas and to the teleological worldview of Augustan Rome. Of course, one may easily find faults in the behavior of either combatant, but the allusive comparisons between Aeneas' actions at the end of the poem and Turnus' killing of Eumedes earlier in Book 12 complicate any zero-sum, partisan analysis. Instead, the ironic fulfillment of Turnus' anti-colonial threat, "thus do they found their walls" (*sic moenia condunt*, 12.361), serves to undermine certain key distinctions between the two characters, suggesting that the violence of the victor in his moment of triumph is potentially not so different from that of his defeated challenger.

David Quint, writing about the fate of antagonists in epic poetry, observes that such challengers, typically portrayed as culturally "other" in some sense, inevitably fail: "They and their stories can . . . be finally assimilated with the

[82] Hardie 1993: 21 observes a similar tension in his discussion of the "sacrificial" aspects of Turnus' death, an act of revenge that is foundational to the Roman cultural order, while nevertheless "retain[ing] its potential to repeat itself in fresh outbursts of chaotic anger (the dreary catalogue of vengeance-killings of Roman civil war)."

forces of nature that the victorious builders of empire and history strive to overcome" (1993: 99). In the case of Turnus and the Italians, their defeat on the battlefield marks the allegorical taming (for now) of atomic forces of purposeless chaos that threatened the foundation of an orderly, teleological universe of Roman imperial power. Although echoes of atomic language in the final scene may signify uneasiness about the violent *manner* of Aeneas' victory, the systematic conflation of atomic imagery with anti-Trojan disorder and violence throughout the poem, culminating in Turnus' tragic failure, evinces an unambiguous preference for teleology, both in its cosmology and politics. One need not take at face value the poem's most optimistic prophecies of eternal rule and "empire without end" (*imperium sine fine*, *Aen*. 1.279) to recognize that, by the time of the poem's violent and sobering conclusion, a vision of hierarchical order has won out that is starkly at odds with the non-teleological framework of atomic physics.

5

Atomism and the Worldview of the *Aeneid*

Dumtaxat rerum magnarum parva potest res
exemplare dare et vestigia notitiai.

—Lucretius 2.123–24

As far as this matter is concerned, something small can offer a model of greater things and trace the outlines of an idea.

—Lucretius

With Turnus' death at the hands of Aeneas, the *Aeneid* ends in polemical inversion and remythologization in the fullest sense of these terms: through a nexus of allusive details linking Turnus' final failed attack to the chaotic motion of Epicurean atoms, the philosophy of Lucretius is firmly rejected, but in terms distinctly Lucretian. The putative disorder of atomism yields, on the whole, to Roman rule and a divinely organized cosmos. Yet it is important to remember that this conclusion comes only after a long struggle between order and chaos over the course of the poem, during which key obstacles to the Trojan mission—including storms at sea, armed resistance by foreign antagonists, and Aeneas' own private moments of indecision and doubt—are portrayed in atomistic terms. While Hardie rightly characterizes many of the Lucretian allusions in the *Aeneid* as instances of remythologization, there are many allusions that preserve the original atomic, philosophical spirit of the Lucretian source text for polemical purposes, which work alongside the remythologizing variety in the *Aeneid*. To focus exclusively on instances of inverted or rejected Epicurean philosophy, or to interpret virtually every use of Lucretian imagery by Virgil as an inversion of Lucretian philosophy, would be to miss the fact that the specter of atomism persists in many scenes of the *Aeneid*, uninverted and independent, as a metaphor for disorder right up to the final scene of Book 12. On an allegorical level, moreover, this metaphor

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adds a powerful cosmological component to the basic narrative in which Rome's ancestors overcome adversity and disorder to build a more harmonious universe at the level of physics, culture, politics, and religion (even if that positive teleological vision remains incomplete in some respects by the end of the poem).[1]

In the process of providing this account of poetic allusions to Lucretian atomism, I have also attempted to pursue a number of parallel threads concerning the ideological nature of Virgil's allusive engagement with Lucretius; the permeability of mythological, political, and philosophical narratives in Greco-Roman epic; and the place of the *Aeneid* within the intellectual history of Greco-Roman literature and philosophy in the 1st century BCE. I now conclude by returning to these broader issues, which were initially raised in the Introduction and in Chapter 1, in order to assess how the study of atomic imagery in the *Aeneid* can inform our understanding of the poem as a whole. In the first section, I explore the surprising extent to which political and cosmological ideologies overlap in the world of the *Aeneid*, and what this overlap reveals about the philosophical coherence of the poem's worldview. In the following section, I consider how the tendentious deployment of Lucretian atomic imagery as a symbol of disorder fits into existing evidence concerning Virgil's personal and philosophical associations with Epicureanism. Finally, I offer some remarks about the place of Epicurean atomic physics within the intellectual landscape of the early Roman Empire, while suggesting promising directions for further study.

5.1 VIRGIL ON THE NATURE OF THINGS (AGAIN)

In her book *Virgil on the Nature of Things*, which investigates Lucretian intertextuality and literary influence in the *Georgics*, Monica Gale argues that Virgil's didactic poetry is, at its core, philosophically agnostic. That is, it aims to provide exposure to varied schools of thought without endorsing any specific set of doctrines or thinkers (Gale 2000: 270). As I have argued in the

[1] Thomas 2001: 11 cautions that, despite the presence of clear moments of anti-imperial dissent in the *Aeneid*, such scattered moments still might not tip the scales in terms of how one interprets the ideological stance of the poem as a whole: "The hidden quality of much of Virgilian ideology is in my view intended . . . The full global effect of Virgil's poetry, and the force of the accumulation of these utterances, is perhaps a different matter, and may have to do with its acquiring a momentum and dimension that went even beyond those intentions. That full meaning will always be what we construct, but its building blocks are identifiable and susceptible to philological hermeneutics."

preceding chapters of the present book, Virgil is also interested in the *Aeneid* in grappling with philosophical questions concerning the "nature of things" and the ordering of the universe, but with the crucial difference that his polemical use of Lucretian imagery reveals an unambiguously partisan rejection of Epicurean atomic physics, along with its non-teleological ideology. While previous works of scholarship have detected moments (however brief) in the *Aeneid* in which Virgil engages sympathetically or constructively with Epicurean teachings on ethics, kingship theory, and psychology, virtually every allusion to Lucretian physics in the poem associates atomic imagery with confusion and disarray.[2]

An important consequence of Virgil's negative attitude toward the decentralized, non-teleological worldview of atomism, as revealed through his tendentious use of atomic imagery in scenes of political disorder and personal doubt, is that it reveals a fairly consistent set of philosophical principles at work in the world of the poem. On the one hand, Aeneas' defeat of Turnus, by evoking key verbal and thematic details from Turnus' earlier "atomistic" killing of Eumedes, muddies the distinction between how these characters use violence for political ends. Despite the partial erosion of moral distinctions between Aeneas and Turnus in the closing lines of the *Aeneid*, however, the allusive function of atomic imagery remains fundamentally the same throughout the poem: to imbue various characters and events with connotations of cosmic disorder and chaos. In every instance in which Aeneas (or any other character) is associated with Lucretian atomism, the effect is not to create sympathy for atomic physics, but rather to cast aspersions on some aspect of that character's behavior that stands in the way of Rome's preordained future. For all of the ideological contradictions and doubts that exist within the poem, the many instances of allusion to Lucretian atomism discussed in this book situate Virgil's epic squarely within the anti-atomist tradition of philosophy discussed in Chapter 1, exemplified in the writings of Aristotle and Cicero.

In turn, this pattern of consistently adopting the framing of anti-atomist philosophers in allusions to Lucretian atomism has the effect of anchoring the worldview of the *Aeneid* within an ideological framework that thoroughly conflated the realms of politics and cosmology, and that was profoundly suspicious of, if not outright hostile to, non-hierarchical modes of

[2] For recent studies of Virgil's occasionally constructive engagement with Epicurean philosophy in the *Aeneid*, see n. 16 in the Introduction.

social and political organization. While the metaphorical politics of atomism in Lucretius are enthusiastically republican and egalitarian, in Cicero and the other non-atomists they are anarchic and violent, stemming from decidedly aristocratic or monarchic perspectives that are deeply skeptical about popular politics and spontaneous order. By embracing this particular framing of atomic physics as a model for disorganization and chaotic violence, and then repeatedly associating atomic imagery with obstacles to Roman power, the *Aeneid* reveals itself to be fundamentally opposed to non-hierarchical understandings of both cosmology and politics. Scholars have rightly cautioned against attempting to claim the *Aeneid* for any one philosophical school, but the poem does embrace a coherent set of philosophical and political assumptions about the relationship between hierarchy and order that were shared by all anti-atomist writers between the 4th and 1st centuries BCE.[3] To the extent that the worldview of the poem aligns with Platonists, Peripatetics, Stoics, and Academic Skeptics on the impossibility of structural order without purposeful hierarchies, this aspect of the *Aeneid* reflects a popular intellectual position that was found across many different philosophical schools and that persisted for centuries in mainstream philosophical discourse.

Last, as I hope I have adequately demonstrated, the preference for teleology and hierarchy evident in Virgil's allusions to Lucretian atomism is never exclusively literary or philosophical—or exclusively political, religious, or mythological—but always multivalent and subject to coordinated interpretations on multiple levels. In choosing to analyze and parse allusion to Lucretian physics in the *Aeneid*, to take seriously the philosophical implications of each borrowing, and to consider in depth the intellectual background against which such borrowings took place, spanning centuries of natural-philosophical debate from Democritus to Cicero, I have treated Virgil's epic as a philosophically serious text with a coherent orientation toward basic issues of teleology, order, and purpose. While it is perhaps much more difficult to provide a positive answer to the question of what the philosophical worldview of the *Aeneid* is, one can follow the *via negativa* (i.e., clarifying what the poem's worldview is *not*) to find an approximate answer, or a helpful start, in the poem's overall rejection of Epicurean atomism, along with its apolitical, non-teleological ideology.

[3] For a word of caution about claiming the entirety of the *Aeneid* for any specific philosophical school (particularly the Stoics or Epicureans), see n. 11 in the Introduction.

5.2 BIOGRAPHICAL CONSIDERATIONS

In light of ancient evidence that Virgil had strong ties to, and even studied under, prominent Epicurean philosophers in the Bay of Naples, it is perhaps surprising that the *Aeneid* embraces such an anti-atomist perspective.[4] Indeed, various scholars throughout the 20th century have argued that Virgil's connections to the Greek Epicureans Philodemus and Siro, combined with his painstaking allusive engagement with Lucretian poetry and the biographical testimony of the late-antique Virgilian *Vitae*, constitute proof of the poet's personal adherence to Epicurean thought, although opinions on the depth and duration of that commitment have varied considerably.[5] While more recent work has largely refrained from attempting to claim Virgil as an ideologically consistent follower of any particular philosophical sect, the evidence that the poet remained sympathetic to various aspects of Epicureanism over the course of his career is strong.[6] What, then, are we to make of the apparent inconsistency between Virgil's well-attested social and educational links to Epicurean philosophy and the thoroughly negative role assigned to Lucretian atomic imagery in the *Aeneid*?[7] Is it possible—or even worthwhile—to reconcile the anti-atomist worldview of the *Aeneid* with the limited biographical information we have about its author?

To begin, it is important to exercise caution when attempting to assess the personal or political attitudes of an ancient author through the lens of a fictional work, and it is for this reason that I have preferred to analyze allusions to Lucretian atomism in terms of the worldview of the *Aeneid*, rather than of Virgil himself.[8] Nevertheless, this analysis can, within certain limits, shed useful light on the question of Virgil's biography and his

[4] For evidence concerning Virgil's ties to Epicurean philosophers in Italy, see Chapter 1, nn. 4 and 5.

[5] Gigante (2004) provides a useful survey of 20th-century scholarship on this question. See also Frank 1922: 109, who argues, on the basis of Virgil's own poetry, that he "very probab[ly]" remained committed to Epicureanism for his entire adult life; cf. Tait 1941: 48–63.

[6] See Chambert 2004: 43, who discusses the "mark of Epicureanism" and its positive "influence" upon Virgilian poetry, rather than asserting the private beliefs of the poet himself.

[7] Different versions of this same basic question have been posed in the past with respect to areas of philosophy other than physics. See, e.g., Johnson 1976: 151, who focuses on the Epicurean view of history: "Vergil's reading of [*de Rerum Natura*] was probably the most important thing in his life as a poet (to call that reading an event would be misleading since it is clear that the reading was habitual and unending) [. . .] Why should an Epicurean attempt to write not merely a foundation epic but *the* Foundation Epic?"

[8] Cf. Eco 1990: 50–62, who helpfully differentiates between what is involved in attempting to assess the *intentio auctoris* ("author's intention"), *intentio lectoris* ("reader's intention"), and *intentio operis* ("the intention of the work itself").

relationship to philosophy. First and foremost, the negative deployment of atomic imagery in contexts of doubt and disorder renders the notion of Virgil as a committed Epicurean in his later years extremely unlikely. It is not just that Virgil alludes tendentiously to Lucretius, a connection that could easily be interpreted as the product of a literary rivalry with a talented predecessor. Rather, the repeated filtering of Lucretian atomic imagery in the *Aeneid* through the anti-atomist perspective of authors like Cicero points at a rejection of core tenets of Epicurean cosmology, a rejection that is fundamentally at odds with the *Aeneid* being pro-Epicurean in any meaningful sense.[9]

Second, the fact that Virgil's epic engages carefully not just with the language of Lucretian atomism, but also with the differing perspectives of non-Epicurean philosophers, indicates a level of intellectual seriousness to his philosophical allusions beyond what is often supposed for the *Aeneid*. While Virgil's education at Naples would have exposed him to the works of Epicurean philosophers, it is likely that his studies (whether as a young man under Siro, or later in life) brought him into contact with many other authors from opposing schools of thought. The diversity of philosophical texts attested in the ruins of the Villa dei Papiri in Herculaneum certainly supports this supposition, as does the frequency with which Philodemus' own works quote non-Epicurean philosophers at length, even if only for the purpose of refuting their arguments.[10] That Virgil's allusions to Lucretian physics should not only acknowledge the difference of opinions concerning atomism, but also participate in common tropes of anti-atomist discourse, suggests broad familiarity with the anti-materialist tradition of philosophy that I outlined in Chapter 1, a tradition that originated with Aristotle and found its most vivid expression in Cicero's dialogues. Thus, Virgil's allusive relationship to Lucretius is best conceived of not just as a poetic rivalry with a distinguished predecessor in the genre of hexameter epic, but also as part of a broader intellectual engagement with the language and ideas of natural philosophy.

[9] Cf. the discussion of Adler (2003) and Mellinghoff-Bourgerie (1990) at pp. 6–7.

[10] Included among the papyri written by Philodemus and the Epicurean circle at Naples are multiple historiographical works about other philosophical schools: *History of the Academy* (*P. Herc.* 1021, 164), *History of the Stoics* (*P. Herc.* 1018), and *On the Stoics* (*P. Herc.* 155, 339). See Gigante 1995: 17–23, 115.

5.3 DIRECTIONS FOR FURTHER STUDY

At the beginning of this book I noted that, despite a proliferation of excellent studies in recent decades focused on the interpretation of Lucretian allusions in individual episodes and scenes of the *Aeneid*, the poem lacks a truly comprehensive analysis of Lucretian allusions in the style of Knauer's *Die* Aeneis *und Homer* (1964) and Nelis's *Vergil's* Aeneid *and the* Argonautica *of Apollonius Rhodius* (2001).[11] In the absence of such a study, I have attempted to articulate a global reading of allusions to Lucretian atomic imagery that synthesizes existing frameworks of interpretation, such as Hardie's thesis that Virgil "remythologizes" Lucretian cosmology, as well as Hejduk and Gordon's analyses of polemical allusion to Lucretian ethics in the figure of Dido.[12] The compatibility of these different approaches, all of which deal substantively with the philosophical implications of Virgil's literary borrowings, illustrates both the feasibility and the usefulness of a more comprehensive examination of Lucretian allusion in the *Aeneid*, especially one that would assemble an exhaustive list of textual parallels between the two works.

Another promising direction for further study lies in the realm of intellectual history. By connecting the tendentious nature of Virgil's atomic allusions to the anti-atomist discourse of the philosophical tradition, I have worked throughout this book to situate the *Aeneid* not only within the currents of literary history, but within the philosophical history of ideas as well. Thus, I have argued that Virgil, despite crafting his allusions to Epicurean atomism almost entirely from Lucretian intertextual material, still owes an intellectual debt to the opponents of atomism. While this debt is not as lexically "visible" as the allusions to Lucretius are themselves, it is nonetheless important for how we understand the worldview of the poem. When we are dealing with philosophy, there are serious issues with trying to claim the poet for a particular school, but a careful examination of philosophical positions that the text consistently *rejects* can yield useful information when positive endorsements are lacking. In this vein, more work could be done to investigate where else Virgil may have drawn from a philosopher's critiques of competing schools and doctrines in his handling of other subjects within the *Aeneid*. While a handful of critics have done so with respect to Philodemus' ethical treatises,

[11] As mentioned in n. 2 in the Introduction, Merrill's "Parallels and Coincidences in Lucretius and Vergil" (1918) leaves much to be desired in its tabulation and analysis of Lucretian borrowing.

[12] Cf. pp. 9–11.

it would be particularly useful to further examine Virgil's engagement with non-Epicurean philosophers, and with Cicero in particular.[13]

Finally, I believe that the literary reception of Epicurean atomism in authors beyond Virgil merits closer study.[14] In *The Invention and Gendering of Epicurus* (2012), Pamela Gordon convincingly demonstrates that the tendentious or parodic use of Epicurean ethical language constituted a widespread and enduring trope of anti-Epicurean discourse in the ancient world. It is true that the hedonistic ethics of Epicurus generated tremendous opposition in a variety of authors and genres, but as the present study of atomic imagery in the *Aeneid* shows, this is only part of the broader story of Epicureanism's negative reception in ancient literature. In the opening lines of the verse invective *in Rufinum*, written over 400 years after Virgil's *Aeneid*, the poet Claudian used the supposedly senseless randomness of Epicurean physics as a foil to the idea of an orderly world ruled by just gods and subject to the political control of the Roman emperor.[15] In the long span of time between Cicero and Claudian (and beyond), the specter of atomism remained accessible as a symbol of disorder, and it would be well worth the effort to better understand how and why diverse authors continued to participate in the long tradition that associated atomism with chaos, and atomic cosmology with unruly popular politics.

[13] For Virgil's engagement with arguments from Philodemus' ethical treatises, see n. 16 in the Introduction.

[14] Fleischer 2016: 23–211 is exemplary in this regard, although his survey of Epicurean receptions is limited to authors connected with Alexandria. Although Erler and Bee's *Epikureismus in der späten Republik und der Kaiserzeit* (2000) focuses largely on social and ethical dimensions of Epicurean receptions, a few chapters within it discuss atomic cosmology as well: see Algra 2000: 177–88 (on Cleomedes); Markschies 2000: 205–11 (on Dionysius of Alexandria); and Kany-Turpin 2000: 218–30 (on Lactantius). Despite the focus of the present work on negative receptions of Epicurean philosophy, the study of more positive receptions is equally necessary for achieving a balanced view of the subject. See, e.g., Yona (2018) on the role of Epicurean ethics in the construction of Horace's satiric persona.

[15] Claud. *Ruf.* 1.6–19. For the quotation, see the epigraph to Chapter 2 in the present work.

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